SEQUENCE LISTING

<110> Regeneron Pharmaceuticals, Inc.

<120> Human Antibodies to Influenza
Hemagglutinin

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<150> 62/094752
<151> 2014-12-19

<150> 62/152122
<151> 2015-04-24

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gcacagaagt tccagggcag agtcacgatt accacggacg aatccacgag cacagcctac 240
atggagctgg gcagcctgag atctgaggac acggccgtgt attactgtgc gagagggaag 300
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35 40 45

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Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe
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Gln Gly Arg Val Thr Ile Thr Thr Asp Glu Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Gly Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
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gggaaagccc ctaagctcct gatctataag gcgtctagtt tacaaagtgg ggtcccatca 180
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            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 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
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            20   25   30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Gly Ile Ile Pro Ile Phe Gly Thr Pro Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Asp Arg Val Thr Ile Thr Thr Asp Glu Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gln Gln Pro Val Tyr Gln Tyr Asn Met Asp Val Trp Gly Gln
            100   105   110
Gly Thr Thr Val Thr Val Ser Ser
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ctgaaagccc ctaagcgcct gatctatgct gcgtccagtt tgcaaagtgg ggtcccatca 180
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Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asn
            20                  25                  30
Leu Gly Trp Tyr Gln Gln Lys Pro Leu 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 Tyr Asn Asn Tyr Pro Trp
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105


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<400> 28
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<210> 29
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<212> DNA
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<400> 29
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<210> 30
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<400> 30
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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Asn Ser Tyr
            20   25   30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Gly Ile Ile Pro Ile Phe Ala Thr Thr Asn Phe Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Ser Asp Glu Ser Thr Asn Thr Ala Tyr
65   70   75   80
Met Glu Leu Thr Ser Leu Arg Ser Glu Asp Thr Ala Ala Tyr Tyr Cys
                85   90   95
Ala Arg Gly Gly Trp Tyr Asn Trp Gln Tyr Val Gly Phe Asp Ser Trp
            100   105   110

Gly Gln Gly Thr Thr Val Thr Val Ser Ser
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<400> 38
Ile Ile Pro Ile Phe Ala Thr Thr
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gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaaatgg ggtcccttca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcaggct 240
gatgattttg caacttatta ctgccaaaag tataatagta attcgtggac gttcggccaa 300
gggaccaagg tggatatcaa a 321

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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 Asn 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 Ala
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Lys Tyr Asn Ser Asn Ser Trp
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys
            100                 105
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<400> 44
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<210> 45
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<400> 45
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<210> 46
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cctggacaag ggcttgaatg ggtgggagga atcatcgcta tctttggtac aacaaactac 180
gcacagaagt tccagggcag agtcacggtt acaacggaca aatccacgaa cacagtctac 240
atggaattga gcagactgag atctgaggac acggccattt attactgtgc gcgaggtgag 300
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            20   25   30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
        35   40   45
Gly Gly Ile Ile Ala Ile Phe Gly Thr Thr Asn Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Val Thr Thr Asp Lys Ser Thr Asn Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Arg Leu Arg Ser Glu Asp Thr Ala Ile Tyr Tyr Cys
                85   90   95
Ala Arg Gly Glu Thr Tyr Tyr Glu Gly Asn Phe Asp Phe Trp Gly Gln
            100   105   110
Gly Thr Leu Val Thr Val Ser Ser
        115   120

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atcatcgcta tctttggtac aaca 24

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Ile Ile Ala Ile Phe Gly Thr Thr
1 5

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caagggacac gactggagat taaa 324

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

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<400> 60
Gln Ser Val Arg Ser Asn
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<210> 61
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<210> 62
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<400> 62
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<210> 63
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 1   5   10

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gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccgtca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
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Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Pro
                85   90   95
Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
            100   105

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<400> 68
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<400> 69
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<400> 70
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<400> 71
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<210> 72
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cctggacaag gccttgagtg gatgggaggg gtcgtcccta tctttggttc agcaaactac 180
gcacagaagt tccagggcag agtcacgatg accatggacg aatccacgag tacagcctac 240
atggacctga gcagcctgag atctgaggac acggccgttt attattgtgt gagagatccg 300
ggcaactcgg gatactacta ctacggtatg gacgtctggg gccaagggac cacggtcacc 360
gtctcctca   369

<210> 74
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

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

115 120

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

<220>
<223> synthetic

<400> 75
ggaggaacct tcaccggcca tgct 24

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

<220>
<223> synthetic

<400> 76
Gly Gly Thr Phe Thr Gly His Ala
1 5

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

<220>
<223> synthetic

<400> 77
gtcgtcccta tctttggttc agca 24

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

<220>
<223> synthetic

<400> 78
Val Val Pro Ile Phe Gly Ser Ala
1 5

<210> 79

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

<220>
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<400> 79
gtgagagatc cgggcaactc gggatactac tactacggta tggacgtc 48

<210> 80
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 80
Val Arg Asp Pro Gly Asn Ser Gly Tyr Tyr Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 81
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 81
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc agctatttaa attggtttca gcagaaacca 120
gggaaagccc ctaagctcct gatctatact gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagtt cccctccgat caccttcggc 300
caagggacac gactggagat taaa 324

<210> 82
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 82
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 Ser Ile Ser Ser Tyr
20 25 30

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Leu Asn Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Thr Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ser Pro Pro
                85                  90                  95
Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
            100                 105
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<210> 83
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 83
cagagcatta gcagctat 18

<210> 84
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

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

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

<220>
<223> synthetic

<400> 85
actgcatcc 9

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

<220>
<223> synthetic

<400> 86
Thr Ala Ser
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<210> 87
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 87
caacagagtt acagttcccc tccgatcacc 30

<210> 88
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 88
Gln Gln Ser Tyr Ser Ser Pro Pro Ile Thr
 1   5   10

<210> 89
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 89
caggtccacc tggtgcagtc tggggctgag gtgaagaagc ctgggtcgtc ggtgaaggtc 60
tcctgcaagg cttctggagg caccttcagc acctatgcta tcacctgggt gcgacaggcc 120
cctggacaag ggcttgagtg gataggaggg atcagccgtt tctttggttc agcaaactac 180
gcacagaagt ttcagggcag agtcacaatt accacggacg aatccacgaa cacagcctac 240
atggaactaa gcagcctgag atctgaggac acggccgtat attattgtgc gagagatcct 300
ggaaacacgg gctattattt ttacggtatg gacgtctggg gccaagggac cacggtcacc 360
gtctcctca 369

<210> 90
<211> 123
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

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

<210> 91
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 91
ggaggcacct tcagcaccta tgct   24

<210> 92
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 92
Gly Gly Thr Phe Ser Thr Tyr Ala
 1   5

<210> 93
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 93
atcagccgtt tctttggttc agca 24

<210> 94
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 94
Ile Ser Arg Phe Phe Gly Ser Ala
1 5

<210> 95
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 95
gcgagagatc ctggaaacac gggctattat ttttacggta tggacgtc 48

<210> 96
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 96
Ala Arg Asp Pro Gly Asn Thr Gly Tyr Tyr Phe Tyr Gly Met Asp Val
1 5 10 15

<210> 97
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 97
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agtaagagta attctccgat caccttcggc 300
caagggacac gactggagat taaa 324

<210> 98
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

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

<210> 99
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 99
cagagcatta gcagctat 18

<210> 100
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 100
Gln Ser Ile Ser Ser Tyr
 1   5

<210> 101
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 101
ggtgcatcc   9

<210> 102
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 102
Gly Ala Ser
 1

<210> 103
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 103
caacagagta agagtaattc tccgatcacc   30

<210> 104
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 104
Gln Gln Ser Lys Ser Asn Ser Pro Ile Thr
 1   5   10

<210> 105
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 105
caggtccagc tggtgcagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
tcctgcaagg cttctggagg caccttcatc acctatgcta tcagctgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggaggt gtcatcccta tctttggtac tccaaggtac 180
gcacagaagt tccagggcag agtcacgatt accacggacg attccacgac cacagcctac 240
atggagctga gcagcctgag atctgacgac acggccgtgt attattgtgc gacaaggagc 300
agctcgtctc cctattatta ctacggtatg gacgtctggg gccaagggac cacggtcacc 360
gtctcctca 369

<210> 106
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 106
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ile Thr Tyr
            20   25   30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Gly Val Ile Pro Ile Phe Gly Thr Pro Arg Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Thr Asp Asp Ser Thr Thr Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Thr Arg Ser Ser Ser Ser Pro Tyr Tyr Tyr Tyr Gly Met Asp Val
            100   105   110
Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

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

<220>
<223> synthetic

<400> 107
ggaggcacct tcatcaccta tgct 24

<210> 108
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 108
Gly Gly Thr Phe Ile Thr Tyr Ala
1 5

<210> 109
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 109
gtcatcccta tctttggtac tcca 24

<210> 110
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 110
Val Ile Pro Ile Phe Gly Thr Pro
1 5

<210> 111
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 111
gcgacaagga gcagctcgtc tccctattat tactacggta tggacgtc 48

<210> 112
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 112
Ala Thr Arg Ser Ser Ser Ser Pro Tyr Tyr Tyr Tyr Gly Met Asp Val
 1   5   10   15

<210> 113
<211> 336
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 113
gatattgtga tgacccagac tccactctcc tcacctgtca cccttggaca gccggcctcc 60
atctcctgca ggtctagtca aagcctcgta cacagtgatg gaaacaccta tttgagttgg 120
cttcagcaga ggccaggcca gcctccaaga ctcctaattt ataagatttc taaccggttc 180
tctggggtcc cagacagatt cagtggcagt ggggcaggga cagatttcac actgaaaatc 240
agcagggtgg aagctgagga tgtcgggatt tattactgca ttcaagctac acaatttccg 300
tacacttttg gccaggggac caagctggag atcaaa   336

<210> 114
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 114
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asp Gly Asn Thr Tyr Leu Ser Trp Leu Gln Gln Arg Pro Gly Gln Pro
        35   40   45
Pro Arg Leu Leu Ile Tyr Lys Ile Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Ile Tyr Tyr Cys Ile Gln Ala
                85   90   95
Thr Gln Phe Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100   105   110

<210> 115
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 115
caaagcctcg tacacagtga tggaaacacc tat 33

<210> 116
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 116
Gln Ser Leu Val His Ser Asp Gly Asn Thr Tyr
1 5 10

<210> 117
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 117
aagatttct 9

<210> 118
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 118
Lys Ile Ser
1

<210> 119
<211> 27

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 119
attcaagcta cacaatttcc gtacact 27

<210> 120
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 120
Ile Gln Ala Thr Gln Phe Pro Tyr Thr
1 5

<210> 121
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 121
caggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgacggtc 60
tcctgcaagg cttctggata caccttcacc aattatgata tcaactgggt gcgacaggcc 120
actggacaag gacttgagtg gttgggatgg atgagcccta acagtggtaa caaaggctat 180
gcacagaagt tccagggcag agtctccatg actttgaata ccgccttaag cacagcctac 240
atggaactga gcagcctgag atctgaggac acggccgtgt attactgtgc gagatggtat 300
tgtagtgatg ccagttgcta tcccgatgct tttgatatct ggggccaagg gacaatggtc 360
accgtctctt ca 372

<210> 122
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 122
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Thr Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

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Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Leu
        35                  40                  45
Gly Trp Met Ser Pro Asn Ser Gly Asn Lys Gly Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Ser Met Thr Leu Asn Thr Ala Leu Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Trp Tyr Cys Ser Asp Ala Ser Cys Tyr Pro Asp Ala Phe Asp
            100                 105                 110
Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115                 120
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<210> 123
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 123
ggatacacct tcaccaatta tgat 24

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

<220>
<223> synthetic

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

<210> 125
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 125
atgagcccta acagtggtaa caaa 24

<210> 126
<211> 8
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 126
Met Ser Pro Asn Ser Gly Asn Lys
 1   5

<210> 127
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 127
gcgagatggt attgtagtga tgccagttgc tatcccgatg cttttgatat c   51

<210> 128
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 128
Ala Arg Trp Tyr Cys Ser Asp Ala Ser Cys Tyr Pro Asp Ala Phe Asp
 1   5   10   15
Ile

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

<220>
<223> synthetic

<400> 129
gacatccaga tgacccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca ggatttttcc gactggttag cctggtatca gcagaaacct 120
gggaaagccc ctgagctcct gatctatgct acatccagtt tgcatactgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcac cctgcagcct 240
gaagattttg ctacttacta ttgtctacag gctaacaatt tcccgctcac tttcggcgga 300
gggaccaagg tggagatcaa a   321

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

<220>
<223> synthetic

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

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

<220>
<223> synthetic

<400> 131
caggattttt ccgactgg 18

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

<220>
<223> synthetic

<400> 132
Gln Asp Phe Ser Asp Trp
 1   5

<210> 133
<211> 9
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 133
gctacatcc 9

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

<220>
<223> synthetic

<400> 134
Ala Thr Ser
1

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

<220>
<223> synthetic

<400> 135
ctacaggcta acaatttccc gctcact 27

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

<220>
<223> synthetic

<400> 136
Leu Gln Ala Asn Asn Phe Pro Leu Thr
1 5

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

<220>
<223> synthetic

<400> 137
caggtgcagc tggtggagtc tgggggaggc gtggcccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggaat caccttcaat aactatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcattt atttcagatg aaggaagaaa taaacactat 180
ggagactccg tgaagggccg attcaccatc gacagagaca attccaagaa cacactgtat 240
ctgcaaatga atagcctgag agctgaggac acggctgtat attactgtgc gaaattgggg 300
gataatagga atcaccacta cggtttggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

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

<220>
<223> synthetic

<400> 138
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Ala Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ile Thr Phe Asn Asn Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Phe Ile Ser Asp Glu Gly Arg Asn Lys His Tyr Gly Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Asp 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 Gly Asp Asn Arg Asn His His Tyr Gly Leu Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 139
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 139
ggaatcacct tcaataacta tggc 24

<210> 140
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 140
Gly Ile Thr Phe Asn Asn Tyr Gly
 1   5

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

<220>
<223> synthetic

<400> 141
atttcagatg aaggaagaaa taaa 24

<210> 142
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 142
Ile Ser Asp Glu Gly Arg Asn Lys
 1   5

<210> 143
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 143
gcgaaattgg gggataatag gaatcaccac tacggtttgg acgtc 45

<210> 144
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 144
Ala Lys Leu Gly Asp Asn Arg Asn His His Tyr Gly Leu Asp Val
 1   5   10   15

<210> 145
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 145
gacatccagt tgacccagtc tccatccttc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgct gggccagtca gggcattacc aattatttag cctggtatca gcaaaaacca 120
gggaaagccc ctagcctcct gatctatgct gcatccactt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggaca tgggacagaa ttcactctca cagtcagcag cctgcagcct 240
gaagattttg taacttatta ctgtcaacag tttaatagtt acccgatcac cttcggccaa 300
gggacacgac tggagattaa a   321

<210> 146
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 146
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 Thr Asn Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Ser 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 His Gly Thr Glu Phe Thr Leu Thr Val Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Val Thr Tyr Tyr Cys Gln Gln Phe Asn Ser Tyr Pro Ile
                85   90   95
Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
            100   105

<210> 147
<211> 18
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 147
cagggcatta ccaattat 18

<210> 148
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 148
Gln Gly Ile Thr Asn Tyr
 1   5

<210> 149
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 149
gctgcatcc 9

<210> 150
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 150
Ala Ala Ser
 1

<210> 151
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 151
caacagttta atagttaccc gatcacc 27

<210> 152
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 152
Gln Gln Phe Asn Ser Tyr Pro Ile Thr
 1   5

<210> 153
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 153
caggtccagc tggtgcagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
tcctgtaagg cttctggagg caccttcagc aactatgata tcagctgggt gcgacaggcc 120
cctggacaag gacttgagtg gatgggaggg atcatcccca tcattggtac agcaaactac 180
gcacagaagt tccagggcag agtcacgatt acaacggacg aatccacgag cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gagagatccg 300
ggtatagcag tggctggttc gagctttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca   366

<210> 154
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

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

Ala Arg Asp Pro Gly Ile Ala Val Ala Gly Ser Ser Phe Asp Tyr Trp
100 105 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 155
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 155
ggaggcacct tcagcaacta tgat 24

<210> 156
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 156
Gly Gly Thr Phe Ser Asn Tyr Asp
1 5

<210> 157
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 157
atcatcccca tcattggtac agca 24

<210> 158
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 158
Ile Ile Pro Ile Ile Gly Thr Ala
1 5

<210> 159
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 159
gcgagagatc cgggtatagc agtggctggt tcgagctttg actac 45

<210> 160
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 160
Ala Arg Asp Pro Gly Ile Ala Val Ala Gly Ser Ser Phe Asp Tyr
1 5 10 15

<210> 161
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 161
gccatccaga tgacccagtc tccatcctcc ctgtctgcat ctgttggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga catgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccaatt tacaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tggcacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacaa gattacaatt accctcggac gttcggccaa 300
gggaccaagg tggaaatcaa a 321

<210> 162
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 162
Ala Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly

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 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg His Asp
            20                  25                  30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Asp Tyr Asn Tyr Pro Arg
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105
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<210> 163
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 163
cagggcatta gacatgat 18

<210> 164
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 164
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Gln Gly Ile Arg His Asp
 1               5
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<210> 165
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 165
gctgcatcc 9

<210> 166
<211> 3

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 166
Ala Ala Ser
 1

<210> 167
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 167
ctacaagatt acaattaccc tcggacg 27

<210> 168
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 168
Leu Gln Asp Tyr Asn Tyr Pro Arg Thr
 1 5

<210> 169
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 169
caggtgcagc tggtgcagtc tggggctgag gtgaggacgc ctgggtcctc ggtgaaggtc 60
tcctgcaagg cttctggagg caccttcagc agctatgctg tcacctgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggaggg ctcatccctt tctttggtcc agcaaactac 180
gcacagagat tccagggcag agtctcgatt accacggacg aatccacgaa catagcctac 240
ttggagctga gcagcctgag atccgaggac tcggccgttt attactgtgc gagagggcgg 300
aacttcggtg actactgggg ccagggaacc ctggtcaccg tctcctca 348

<210> 170

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

<220>
<223> synthetic

<400> 170
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Arg Thr Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr
            20   25   30
Ala Val Thr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Gly Leu Ile Pro Phe Phe Gly Pro Ala Asn Tyr Ala Gln Arg Phe
    50   55   60
Gln Gly Arg Val Ser Ile Thr Thr Asp Glu Ser Thr Asn Ile Ala Tyr
65   70   75   80
Leu Glu Leu Ser Ser Leu Arg Ser Glu Asp Ser Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Arg Asn Phe Gly Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 171
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 171
ggaggcacct tcagcagcta tgct   24

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

<220>
<223> synthetic

<400> 172
Gly Gly Thr Phe Ser Ser Tyr Ala
 1   5

<210> 173
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 173
ctcatccctt tctttggtcc agca 24

<210> 174
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 174
Leu Ile Pro Phe Phe Gly Pro Ala
1 5

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

<220>
<223> synthetic

<400> 175
gcgagagggc ggaacttcgg tgactac 27

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

<220>
<223> synthetic

<400> 176
Ala Arg Gly Arg Asn Phe Gly Asp Tyr
1 5

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

<220>

<223> synthetic

<400> 177
gacatccaga tgacccagtc tccatcctca ctgtctgcat ctataggaga cagagtcacc 60
atcacttgtc gggcgagtca ggacattagc aattatttag cctggtttca gcagaaacca 120
gggaaagtcc ctaagtccct gatctatgct gcatccaatt tgcaaagtgg ggtcccatca 180
aagttcagcg gcagtggatc tgggacagat ttcactctca ccatcagtac cctgcagcct 240
gaagattttg caacttatta ctgccaacag tatagtagtt atccattcac tttcggccct 300
gggaccaaag tggatatcaa a 321

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

<220>
<223> synthetic

<400> 178
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
 1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr
            20 25 30
Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Val Pro Lys Ser Leu Ile
        35 40 45
Tyr Ala Ala Ser Asn 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 Thr 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> 179
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 179
caggacatta gcaattat 18

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

<220>

<223> synthetic

<400> 180
Gln Asp Ile Ser Asn Tyr
 1   5

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

<220>
<223> synthetic

<400> 181
gctgcatcc   9

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

<220>
<223> synthetic

<400> 182
Ala Ala Ser
 1

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

<220>
<223> synthetic

<400> 183
caacagtata gtagttatcc attcact   27

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

<220>
<223> synthetic

<400> 184
Gln Gln Tyr Ser Ser Tyr Pro Phe Thr

1 5

<210> 185
<211> 351
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 185
caggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
tcctgcaagg cttctggagg caccttcagc agctatgcta tcagctgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggaggg atcatcccta tctttggtac aacaaactac 180
gcacagaagt tccagggcag agtcacgatt accacggacg aatccacgag cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gagaaggcac 300
ggtatatcct ttgactactg gggccaggga accctggtca ccgtctcctc a 351

<210> 186
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 186
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr
20 25 30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Gly Ile Ile Pro Ile Phe Gly Thr Thr Asn Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Ile Thr Thr Asp Glu Ser Thr Ser Thr Ala Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Arg His Gly Ile Ser Phe Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110
Val Thr Val Ser Ser
115

<210> 187
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 187
ggaggcacct tcagcagcta tgct 24

<210> 188
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 188
Gly Gly Thr Phe Ser Ser Tyr Ala
1 5

<210> 189
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 189
atcatcccta tctttggtac aaca 24

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

<220>
<223> synthetic

<400> 190
Ile Ile Pro Ile Phe Gly Thr Thr
1 5

<210> 191
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 191
gcgagaaggc acggtatatc ctttgactac 30

<210> 192
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 192
Ala Arg Arg His Gly Ile Ser Phe Asp Tyr
 1   5   10

<210> 193
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 193
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
gtcacttgcc gggcaagtca gggcattaga aatgatttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag cataatagtt atccgtggac gttcggccta 300
gggaccaagg tggaaatcaa a   321

<210> 194
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 194
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Val Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
            20   25   30
Leu Ala 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 Trp
                85   90   95
Thr Phe Gly Leu Gly Thr Lys Val Glu Ile Lys

100 105

<210> 195
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 195
cagggcatta gaaatgat 18

<210> 196
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 196
Gln Gly Ile Arg Asn Asp
1 5

<210> 197
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 197
gctgcatcc 9

<210> 198
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 198
Ala Ala Ser
1

<210> 199

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

<220>
<223> synthetic

<400> 199
ctacagcata atagttatcc gtggacg 27

<210> 200
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 200
Leu Gln His Asn Ser Tyr Pro Trp Thr
 1 5

<210> 201
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 201
caggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
tcctgcaagg cttctggagg caccttcagc agctatacta tcagctgggt tcgacaggcc 120
cctggacaag ggcttgagtg gatgggaggg atcagcccta tctttggtac agcaaactac 180
gcacagaagt tccagggcag agtcacgatt accacggacg aatccacgag cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gagagagtcc 300
ccgtataact ggaaccaaaa atacttccag tattggggcc agggcaccct ggtcaccgtc 360
tcctca 366

<210> 202
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 202
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr

```
            20                  25                  30
Thr Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Gly Ile Ser Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Ile Thr Thr Asp Glu Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Glu Ser Pro Tyr Asn Trp Asn Gln Lys Tyr Phe Gln Tyr Trp
            100                 105                 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 203
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 203
ggaggcacct tcagcagcta tact 24

<210> 204
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 204
Gly Gly Thr Phe Ser Ser Tyr Thr
 1   5

<210> 205
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 205
atcagcccta tctttggtac agca 24

<210> 206
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 206
Ile Ser Pro Ile Phe Gly Thr Ala
 1   5

<210> 207
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 207
gcgagagagt ccccgtataa ctggaaccaa aaatacttcc agtat   45

<210> 208
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 208
Ala Arg Glu Ser Pro Tyr Asn Trp Asn Gln Lys Tyr Phe Gln Tyr
 1   5   10   15

<210> 209
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 209
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attcgtacac ttttggccag 300
gggaccaagc tggagatcaa a   321

<210> 210

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

<220>
<223> synthetic

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

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

<220>
<223> synthetic

<400> 211
cagagtatta gtagctgg   18

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

<220>
<223> synthetic

<400> 212
Gln Ser Ile Ser Ser Trp
 1   5

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

<220>
<223> synthetic

<400> 213
aaggcgtct 9

<210> 214
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 214
Lys Ala Ser
1

<210> 215
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 215
caacagtata atagttattc gtacact 27

<210> 216
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 216
Gln Gln Tyr Asn Ser Tyr Ser Tyr Thr
1 5

<210> 217
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 217
caggtccagc tggtgcagtc tgggtctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
tcctgcaagg cgtctggagg gaccctcagc ctctatgctg tcagctgggt gcgacaggcc 120
cctggacagg ggcttgagtg gatgggggg atcatcccta tctttggtac aacaaaatac 180
gcacaggagt tccagggcag agtcacgttt tccacggacg agtccacgag cacagcctac 240
atggagctga acagcctgcg atctgaggac acggccgtgt attactgtgc gagacaatgg 300
actatgacta gaaccttgga ttttgacatc tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 218
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 218
Gln Val Gln Leu Val Gln Ser Gly Ser Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Leu Ser Leu Tyr
            20   25   30
Ala Val Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Gly Ile Ile Pro Ile Phe Gly Thr Thr Lys Tyr Ala Gln Glu Phe
    50   55   60
Gln Gly Arg Val Thr Phe Ser Thr Asp Glu Ser Thr Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Asn Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gln Trp Thr Met Thr Arg Thr Leu Asp Phe Asp Ile Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

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

<220>
<223> synthetic

<400> 219
ggagggaccc tcagcctcta tgct 24

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

<220>
<223> synthetic

<400> 220
Gly Gly Thr Leu Ser Leu Tyr Ala
 1   5

<210> 221
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 221
atcatcccta tctttggtac aaca   24

<210> 222
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 222
Ile Ile Pro Ile Phe Gly Thr Thr
 1   5

<210> 223
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 223
gcgagacaat ggactatgac tagaaccttg gattttgaca tc   42

<210> 224
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 224

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Ala Arg Gln Trp Thr Met Thr Arg Thr Leu Asp Phe Asp Ile
 1               5                  10
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<210> 225
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 225
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc ggacaagtca gggcattaga aatgatttag gctggtatca gcagaaaccg 120
gggaaagccc ctaagcgcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca 180
agattcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caagttatta ctgtctacaa cataataatt atccgtggac gttcggccaa 300
gggaccaagg tggaaatcaa a   321

<210> 226
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 226
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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Thr 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 Gly 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 Ser Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Trp
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105
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<210> 227
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 227
cagggcatta gaaatgat 18

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

<220>
<223> synthetic

<400> 228
Gln Gly Ile Arg Asn Asp
1 5

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

<220>
<223> synthetic

<400> 229
ggtgcatcc 9

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

<220>
<223> synthetic

<400> 230
Gly Ala Ser
1

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

<220>
<223> synthetic

<400> 231
ctacaacata ataattatcc gtggacg 27

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

<220>
<223> synthetic

<400> 232
Leu Gln His Asn Asn Tyr Pro Trp Thr
 1   5

<210> 233
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 233
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgtag cctccggatt caccttcagt gtctatggca tgaactgggt ccgccaggct 120
ccaggcaagg gtctggactg ggtggcagtc atatcaaatg atggaagtta taaatactat 180
gcggactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacggtgtat 240
ctgcaaatga acagcctgag aggtgaggac acggctattt attactgtgc gaaaaggaat 300
gaatgggagc tagaggaata ctacggtatg gacgtctggg gccaagggac cacggtcacc 360
gtctcctca   369

<210> 234
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

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

100 105 110
Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 235
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 235
ggattcacct tcagtgtcta tggc 24

<210> 236
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 236
Gly Phe Thr Phe Ser Val Tyr Gly
1 5

<210> 237
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 237
atatcaaatg atggaagtta taaa 24

<210> 238
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 238
Ile Ser Asn Asp Gly Ser Tyr Lys
1 5

<210> 239
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 239
gcgaaaagga atgaatggga gctagaggaa tactacggta tggacgtc 48

<210> 240
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 240
Ala Lys Arg Asn Glu Trp Glu Leu Glu Glu Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 241
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 241
gaggtgcagc tggtggagtc tgggggagga ttggtacagt ctggagggtc cctgagactc 60
tcctgtgtag cctctggatt caccttcaat aattatgaga tgaattgggt ccgccaggct 120
ccagggaagg ggctggagtg gatttcatac attgatatta atggtggaag taccatctac 180
tatgcagact ctgtgaaggg ccgattcacc atctccagag acaatgccaa gaagtcactg 240
tatctgcaaa tgaacagcct gagagccgag gacacggcta tttactactg tgcgagcgcc 300
tttggttcgg gtggttttct ttttgactat tggggccagg gaaccctggt cactgtctcc 360
tca 363

<210> 242
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 242
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ser Gly Gly

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 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Asn Asn Tyr
            20                  25                  30
Glu Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Ser Tyr Ile Asp Ile Asn Gly Gly Ser Thr Ile Tyr Tyr Ala Asp Ser
    50                  55                  60
Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Ser Leu
65                  70                  75                  80
Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Ile Tyr Tyr
                85                  90                  95
Cys Ala Ser Ala Phe Gly Ser Gly Gly Phe Leu Phe Asp Tyr Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 243
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 243
ggattcacct tcaataatta tgag 24

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

<220>
<223> synthetic

<400> 244

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Gly Phe Thr Phe Asn Asn Tyr Glu
 1               5
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<210> 245
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 245
attgatatta atggtggaag taccatc 27

<210> 246
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 246
Ile Asp Ile Asn Gly Gly Ser Thr Ile
 1   5

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

<220>
<223> synthetic

<400> 247
gcgagcgcct ttggttcggg tggttttctt tttgactat   39

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

<220>
<223> synthetic

<400> 248
Ala Ser Ala Phe Gly Ser Gly Gly Phe Leu Phe Asp Tyr
 1   5   10

<210> 249
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 249
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggatgtc cctgagactc 60
tcctgtatag cgtctggatt caccttcagt gactatgtca tacactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcaatt atatggtatg atggaagtaa taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
cttgaaatga atagactgag agtcgaggac acggctgtgt tttactgtgc gaggggtctg 300
gggatcgaag attacaatta cggtatggac gtctggggcc aagggaccac ggtcaccgtc 360

tcctca 366

<210> 250
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 250
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Met
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ile Ala Ser Gly Phe Thr Phe Ser Asp Tyr
            20   25   30
Val Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Ile Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Glu Met Asn Arg Leu Arg Val Glu Asp Thr Ala Val Phe Tyr Cys
                85   90   95
Ala Arg Gly Leu Gly Ile Glu Asp Tyr Asn Tyr Gly Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 251
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 251
ggattcacct tcagtgacta tgtc 24

<210> 252
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 252
Gly Phe Thr Phe Ser Asp Tyr Val
 1   5

<210> 253
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 253
atatggtatg atggaagtaa taaa 24

<210> 254
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 254
Ile Trp Tyr Asp Gly Ser Asn Lys
1 5

<210> 255
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 255
gcgaggggtc tggggatcga agattacaat tacggtatgg acgtc 45

<210> 256
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 256
Ala Arg Gly Leu Gly Ile Glu Asp Tyr Asn Tyr Gly Met Asp Val
1 5 10 15

<210> 257
<211> 357
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 257
gaggtgcagc tggtgcagtc tggagcagag gtgaaaaagc ccggggagtc tctgaagatc 60
tcctgtaagg gttctggata cagctttacc agctactgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatggggatc atctatcctg gtgactctga taccagatac 180
agcccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatcag caccgcctac 240
ctgcagtgga gcagcctgaa ggcctcggac accgccatgt attactgtgc gagacactgg 300
accgacgagg atgcttttga tatctggggc caagggacaa tggtcaccgt ctcttca 357

<210> 258
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 258
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
                85   90   95
Ala Arg His Trp Thr Asp Glu Asp Ala Phe Asp Ile Trp Gly Gln Gly
            100   105   110
Thr Met Val Thr Val Ser Ser
        115

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

<220>
<223> synthetic

<400> 259
ggatacagct ttaccagcta ctgg 24

<210> 260

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

<220>
<223> synthetic

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

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

<220>
<223> synthetic

<400> 261
atctatcctg gtgactctga tacc   24

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

<220>
<223> synthetic

<400> 262
Ile Tyr Pro Gly Asp Ser Asp Thr
 1   5

<210> 263
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 263
gcgagacact ggaccgacga ggatgctttt gatatc   36

<210> 264
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 264
Ala Arg His Trp Thr Asp Glu Asp Ala Phe Asp Ile
 1   5   10

<210> 265
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 265
caggtccagc tggtgcagtc tgggactgag gtgaagaagc ctgggtcttc ggtgaaggtc 60
tcctgcaagg cttctggagg caccttcggc agttatccta tcagctgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agcaaactcc 180
gcacagaagt tccagggcag agtcacgatt accacggacg aacccacgag cacagccttc 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gagaccgtat 300
tacgatattt tgactgacta ctacggtatg gacgtctggg gtcaagggac cacggtcacc 360
gtctcctca   369

<210> 266
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 266
Gln Val Gln Leu Val Gln Ser Gly Thr Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Gly Ser Tyr
            20   25   30
Pro Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Ser Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Thr Asp Glu Pro Thr Ser Thr Ala Phe
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Pro Tyr Tyr Asp Ile Leu Thr Asp Tyr Tyr Gly Met Asp Val
            100   105   110
Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

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

<220>
<223> synthetic

<400> 267
ggaggcacct tcggcagtta tcct 24

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

<220>
<223> synthetic

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

<210> 269
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 269
atcatcccta tctttggtac agca 24

<210> 270
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 270
Ile Ile Pro Ile Phe Gly Thr Ala
1 5

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

<220>
<223> synthetic

<400> 271
gcgagaccgt attacgatat tttgactgac tactacggta tggacgtc 48

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

<220>
<223> synthetic

<400> 272
Ala Arg Pro Tyr Tyr Asp Ile Leu Thr Asp Tyr Tyr Gly Met Asp Val
 1 5 10 15

<210> 273
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 273
caggtccagc tggtgcagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
tcctgcaagg cttctggagg caccttcagc agctatgcta tcagctgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agcaaactac 180
gcacagaagt tccagggcag agtcacgatt accacggacg aatccacgag cacagcctac 240
atggagctga gcagtctgag atctgaggac acggccgtgt attactgtgc gacagaaggg 300
tacaactgga actatgacta ttggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 274
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

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

```
    50                  55                  60
Gln Gly Arg Val Thr Ile Thr Thr Asp Glu Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Thr Glu Gly Tyr Asn Trp Asn Tyr Asp Tyr Trp Gly Gln Gly Thr
            100                 105                 110
Leu Val Thr Val Ser Ser
        115
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<210> 275
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 275
ggaggcacct tcagcagcta tgct 24

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

<220>
<223> synthetic

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

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

<220>
<223> synthetic

<400> 277
atcatcccta tctttggtac agca 24

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

<220>

<223> synthetic

<400> 278
Ile Ile Pro Ile Phe Gly Thr Ala
 1   5

<210> 279
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 279
gcgacagaag ggtacaactg gaactatgac tat   33

<210> 280
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 280
Ala Thr Glu Gly Tyr Asn Trp Asn Tyr Asp Tyr
 1   5   10

<210> 281
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 281
caggtccagc tggtgcagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
tcctgcaagg cttctggagg caccttcagc agctatgtta tcacctgggt gcgacaggtc 120
cctggacaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agcaaactac 180
gcacagaagt tccagggcag agtcacgatt accacggacg aatccacgag cacagcctac 240
atggacctga gcagcctgag atctgaggac acggcctttt attattgtgc gagaaggagg 300
tctaactggg gatctcatgc ttttgatatc tggggccaag ggacaatggt caccgtctct 360
tca   363

<210> 282
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 282
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr
            20   25   30
Val Ile Thr Trp Val Arg Gln Val Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Thr Asp Glu Ser Thr Ser Thr Ala Tyr
65   70   75   80
Met Asp Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Phe Tyr Tyr Cys
                85   90   95
Ala Arg Arg Arg Ser Asn Trp Gly Ser His Ala Phe Asp Ile Trp Gly
            100   105   110
Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 283
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 283
ggaggcacct tcagcagcta tgtt   24

<210> 284
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 284
Gly Gly Thr Phe Ser Ser Tyr Val
 1   5

<210> 285
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 285
atcatcccta tctttggtac agca 24

<210> 286
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 286
Ile Ile Pro Ile Phe Gly Thr Ala
1 5

<210> 287
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 287
gcgagaagga ggtctaactg gggatctcat gcttttgata tc 42

<210> 288
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 288
Ala Arg Arg Arg Ser Asn Trp Gly Ser His Ala Phe Asp Ile
1 5 10

<210> 289
<211> 387
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 289

gaagtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggaat cacctttgat gattatgcca tgtactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag cataggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agttgaggac acggccttgt attattgtgc aaaagataag 300
gggtattacg atattttgac tggagattac tactactact acggtatgga cgtctggggc 360
caagggacca cggtcaccgt ctcctca 387

<210> 290
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 290
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ile Thr Phe Asp Asp Tyr
            20   25   30
Ala Met Tyr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Lys Gly Tyr Tyr Asp Ile Leu Thr Gly Asp Tyr Tyr Tyr
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

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

<220>
<223> synthetic

<400> 291
ggaatcacct ttgatgatta tgcc 24

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

<220>
<223> synthetic

<400> 292
Gly Ile Thr Phe Asp Asp Tyr Ala
 1   5

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

<220>
<223> synthetic

<400> 293
attagttgga atagtggtag cata   24

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

<220>
<223> synthetic

<400> 294
Ile Ser Trp Asn Ser Gly Ser Ile
 1   5

<210> 295
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 295
gcaaaagata aggggtatta cgatattttg actggagatt actactacta ctacggtatg 60
gacgtc   66

<210> 296
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 296
Ala Lys Asp Lys Gly Tyr Tyr Asp Ile Leu Thr Gly Asp Tyr Tyr Tyr
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 297
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 297
gaggtgcagc tggtggagtc tgggggaagc ttggtacagc ctgggggtc cctcagactc 60
tcctgtgcag cctctggatt cacctttagc atctctgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtagta gtggtgttag cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgatgac acggccgtat attactgtgc gaaagggagc 300
agctggtact acttcgacta ctggggccag ggaaccacgg tcaccgtctc ctca   354

<210> 298
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 298
Glu Val Gln Leu Val Glu Ser Gly Gly Ser Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ile Ser
            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 Ser Ser Gly Val 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 Asp Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Gly Ser Ser Trp Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
            100   105   110
Thr Val Thr Val Ser Ser
        115

<210> 299

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

<220>
<223> synthetic

<400> 299
ggattcacct ttagcatctc tgcc 24

<210> 300
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 300
Gly Phe Thr Phe Ser Ile Ser Ala
1 5

<210> 301
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 301
attagtagta gtggtgttag caca 24

<210> 302
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 302
Ile Ser Ser Ser Gly Val Ser Thr
1 5

<210> 303
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 303
gcgaaaggga gcagctggta ctacttcgac tac 33

<210> 304
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 304
Ala Lys Gly Ser Ser Trp Tyr Tyr Phe Asp Tyr
 1 5 10

<210> 305
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 305
gacatcgtga tgacccagtc tccaggcatt ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa 120
cctggccagg ctcccagact cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggac 240
cctgaagatt ttgcagtgta ttactgtcag cagtatggta gctcacacta cacttttggc 300
caggggacca aggtggagat caaacga 327

<210> 306
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 306
Asp Ile Val Met Thr Gln Ser Pro Gly Ile 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
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35 40 45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50 55 60

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

<210> 307
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 307
cagagtgtta gcagcagcta c 21

<210> 308
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 308
Gln Ser Val Ser Ser Ser Tyr
1 5

<210> 309
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 309
ggtgcatcc 9

<210> 310
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 310

Gly Ala Ser
 1

<210> 311
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 311
cagcagtatg gtagctcaca ctacact 27

<210> 312
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 312
Gln Gln Tyr Gly Ser Ser His Tyr Thr
 1 5

<210> 313
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 313
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagag cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agttactatt ggagctggat ccggcagccc 120
ccagggaagg gactggagtg gattgggtat atctatcaca gtgggaggac caactacaac 180
ccctccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aagctggact ctgtgaccgc tgcggacacg gccgtgtatt actgtgcgag agggggcagc 300
tcgtccctct actactacta tggtatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 314
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 314
Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Ser 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 His 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 Asp Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Gly Ser Ser Ser Leu Tyr Tyr Tyr Tyr Gly Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

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

<220>
<223> synthetic

<400> 315
ggtggctcca tcagtagtta ctat   24

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

<220>
<223> synthetic

<400> 316
Gly Gly Ser Ile Ser Ser Tyr Tyr
 1   5

<210> 317
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 317
atctatcaca gtgggaggac c 21

<210> 318
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 318
Ile Tyr His Ser Gly Arg Thr
1 5

<210> 319
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 319
gcgagagggg gcagctcgtc cctctactac tactatggta tggacgtc 48

<210> 320
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 320
Ala Arg Gly Gly Ser Ser Ser Leu Tyr Tyr Tyr Tyr Gly Met Asp Val
1 5 10 15

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

<220>
<223> synthetic

<400> 321
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180

aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag cataatagtt acccgtggac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

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

<220>
<223> synthetic

<400> 322
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
            20   25   30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
        35   40   45
Tyr 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 Trp
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 323
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 323
cagggcatta gaaatgat 18

<210> 324
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 324
Gln Gly Ile Arg Asn Asp
 1   5

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

<220>
<223> synthetic

<400> 325
gctgcatcc 9

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

<220>
<223> synthetic

<400> 326
Ala Ala Ser
1

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

<220>
<223> synthetic

<400> 327
ctacagcata atagttaccc gtggacg 27

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

<220>
<223> synthetic

<400> 328
Leu Gln His Asn Ser Tyr Pro Trp Thr
1 5

<210> 329
<211> 354
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 329
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt cacgttcagc aactatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcatcg atatggtatg atggaagtaa taaaaactat 180
gcagactccg tgaagggtcg attcaccatc tccagagaca atcctaagaa cacgctgcat 240
ctgcaaatga gcagcctgag agccgaggac acggctatct attattgtgc gacagagata 300
gcagctcgtc cttttgagta ctggggccag ggaatcctgg tcaccgtctc ctca 354

<210> 330
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 330
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Ser Ile Trp Tyr Asp Gly Ser Asn Lys Asn Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Pro Lys Asn Thr Leu His
65   70   75   80
Leu Gln Met Ser Ser Leu Arg Ala Glu Asp Thr Ala Ile Tyr Tyr Cys
                85   90   95
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Ile
            100   105   110
Leu Val Thr Val Ser Ser
        115

<210> 331
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 331
ggattcacgt tcagcaacta tggc 24

<210> 332

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

<220>
<223> synthetic

<400> 332
Gly Phe Thr Phe Ser Asn Tyr Gly
 1   5

<210> 333
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 333
atatggtatg atggaagtaa taaa 24

<210> 334
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 334
Ile Trp Tyr Asp Gly Ser Asn Lys
 1   5

<210> 335
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 335
gcgacagaga tagcagctcg tccttttgag tac 33

<210> 336
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 336
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr
 1   5   10

<210> 337
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 337
gacatcgtga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta cccctctcac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 338
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

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

<210> 339
<211> 18
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 339
cagagcatta gcagctat 18

<210> 340
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 340
Gln Ser Ile Ser Ser Tyr
 1   5

<210> 341
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 341
gctgcatcc 9

<210> 342
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 342
Ala Ala Ser
 1

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

<220>
<223> synthetic

<400> 343
caacagagtt acagtacccc tctcact 27

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

<220>
<223> synthetic

<400> 344
Gln Gln Ser Tyr Ser Thr Pro Leu Thr
 1 5

<210> 345
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 345
gaggtgcagc tggtggagtc tgggggaggc ttggtccagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacttttaga agctattgga tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtggccgac ataaagcaag atggaagtga gaaatactat 180
gtggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctcactgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagatcccat 300
tacgattttt ggagtggttg ggactacggt atggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 346
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 346
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 Arg Ser Tyr
 20 25 30
Trp Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
Ala Asp Ile Lys Gln Asp Gly Ser Glu Lys Tyr Tyr Val 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 Ser His Tyr Asp Phe Trp Ser Gly Trp Asp Tyr Gly Met Asp
100 105 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 347
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 347
ggattcactt ttagaagcta ttgg 24

<210> 348
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 348
Gly Phe Thr Phe Arg Ser Tyr Trp
1 5

<210> 349
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 349
ataaagcaag atggaagtga gaaa 24

<210> 350
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 350
Ile Lys Gln Asp Gly Ser Glu Lys
 1   5

<210> 351
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 351
gcgagatccc attacgattt ttggagtggt tgggactacg gtatggacgt c   51

<210> 352
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 352
Ala Arg Ser His Tyr Asp Phe Trp Ser Gly Trp Asp Tyr Gly Met Asp
 1   5   10   15
Val

<210> 353
<211> 322
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 353
gacatcgtga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta cccctcactt tcggcggagg 300
gaccaaggtg gagatcaaac ga   322

<210> 354
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

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

<210> 355
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 355
cagagcatta gcagctat   18

<210> 356
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 356
Gln Ser Ile Ser Ser Tyr
 1   5

<210> 357
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 357
gctgcatcc 9

<210> 358
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 358
Ala Ala Ser
1

<210> 359
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 359
caacagagt 9

<210> 360
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 360
Gln Gln Ser
1

<210> 361
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 361
gaggtgcagc tggtggagtc tgggggaggc gtggtccagt ctgggaggtc cctgagactt 60
tcctgtgcag cgtctggatt caccttcagt aactatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggactg ggtggcactt atatggcttg atggaagtca tgaaaactat 180

gcagactccg tgaagggccg attcaccata tccagagaca attccaagaa cacactattt 240
ctgcaaatga acaacctgag agccgaggac acggctgtgt actactgtgc gacagagata 300
gcagctcgtc cttttgagta ctggggccag ggaaccacgg tcaccgtctc ctca 354

<210> 362
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

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

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

<220>
<223> synthetic

<400> 363
ggattcacct tcagtaacta tggc 24

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

<220>
<223> synthetic

<400> 364
Gly Phe Thr Phe Ser Asn Tyr Gly

1 5

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

<220>
<223> synthetic

<400> 365
atatggcttg atggaagtca tgaa 24

<210> 366
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 366
Ile Trp Leu Asp Gly Ser His Glu
1 5

<210> 367
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 367
gcgacagaga tagcagctcg tccttttgag tac 33

<210> 368
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 368
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr
1 5 10

<210> 369

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

<220>
<223> synthetic

<400> 369
gacatcctga tgacccagtc tccatcctcc ctgtctacat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc acctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatgct gcatccagtt tgcaaagtgg ggtcccgtca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccgtcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacattt cccctctcac tgtcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 370
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 370
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Thr Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Thr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Val Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ile Ser Pro Leu
                85   90   95
Thr Val Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

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

<220>
<223> synthetic

<400> 371
cagagcatta gcacctat 18

<210> 372

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

<220>
<223> synthetic

<400> 372
Gln Ser Ile Ser Thr Tyr
 1   5

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

<220>
<223> synthetic

<400> 373
gctgcatcc   9

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

<220>
<223> synthetic

<400> 374
Ala Ala Ser
 1

<210> 375
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 375
caacagagtt acatttcccc tctcact   27

<210> 376
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 376
Gln Gln Ser Tyr Ile Ser Pro Leu Thr
 1   5

<210> 377
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 377
gaggtgcagc tggtggagtc tgggggaggc ttggtacagt ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt taccttcagc acttatgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtagta gcggtgttag cacacactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaagtga acagcctgag agccgaggac acggccgtat atttttgtgc taaagggagt 300
gcctggtact acttcgactt ctggggccag ggaaccctgg tcaccgtctc ctca   354

<210> 378
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 378
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ser 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 Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Ser Ser Ser Gly Val Ser Thr His 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 Val Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Phe Cys
                85   90   95
Ala Lys Gly Ser Ala Trp Tyr Tyr Phe Asp Phe Trp Gly Gln Gly Thr
            100   105   110
Leu Val Thr Val Ser Ser
        115

<210> 379

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

<220>
<223> synthetic

<400> 379
ggatttacct tcagcactta tgcc 24

<210> 380
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 380
Gly Phe Thr Phe Ser Thr Tyr Ala
1 5

<210> 381
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 381
attagtagta gcggtgttag caca 24

<210> 382
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 382
Ile Ser Ser Ser Gly Val Ser Thr
1 5

<210> 383
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 383
gctaaaggga gtgcctggta ctacttcgac ttc 33

<210> 384
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 384
Ala Lys Gly Ser Ala Trp Tyr Tyr Phe Asp Phe
 1 5 10

<210> 385
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 385
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa 120
actggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttcctgtcaa cagtatggtg gctcaccgat caccttcggc 300
caagggacac gactggagat taaacga 327

<210> 386
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 386
Asp Ile Val Met 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
Tyr Leu Ala Trp Tyr Gln Gln Lys Thr Gly Gln Ala Pro Arg Leu Leu
        35 40 45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50 55 60

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

<210> 387
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 387
cagagtgtta gcagcagcta c 21

<210> 388
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 388
Gln Ser Val Ser Ser Ser Tyr
1 5

<210> 389
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 389
ggtgcatcc 9

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

<220>
<223> synthetic

<400> 390

Gly Ala Ser
 1

<210> 391
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 391
caacagtatg gtggctcacc gatcacc 27

<210> 392
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 392
Gln Gln Tyr Gly Gly Ser Pro Ile Thr
 1 5

<210> 393
<211> 387
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 393
gaggtgcagc tggtggagtc tgggggaggc gtggtacagc ctgggggGTC cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccgtcaagct 120
ccagggaagg gtctggagtg ggtctctctt attagtgggg atggtggtag cacatactat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acagcaaaaa ctccctgtat 240
ctgcaaatga acagtctgag aactgaggac accgccttgt attactgtgc aaaagataac 300
tatgatagta gtggttatta ctacgttaac tactactact acggtatgga cgtctggggc 360
caagggacca cggtcaccgt ctcctca 387

<210> 394
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 394
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Leu Ile Ser Gly Asp Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Asn Tyr Asp Ser Ser Gly Tyr Tyr Tyr Val Asn Tyr Tyr
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 395
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 395
ggattcacct ttgatgatta tgcc 24

<210> 396
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 396
Gly Phe Thr Phe Asp Asp Tyr Ala
 1   5

<210> 397
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 397
attagtgggg atggtggtag caca 24

<210> 398
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 398
Ile Ser Gly Asp Gly Gly Ser Thr
1 5

<210> 399
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 399
gcaaaagata actatgatag tagtggttat tactacgtta actactacta ctacggtatg 60
gacgtc 66

<210> 400
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 400
Ala Lys Asp Asn Tyr Asp Ser Ser Gly Tyr Tyr Tyr Val Asn Tyr Tyr
1 5 10 15
Tyr Tyr Gly Met Asp Val
20

<210> 401
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 401
gaaatcgtga tgacccagtc tccagcattc atgtcagcga ctccaggaga caaagtcaac 60
atctcctgca aagccagcca agacattgat gatgatatga actggtacca acagaaacca 120
ggagaagctg ctattttcat tattcaagaa gctactactc tcgttcctgg aatctcacct 180
cgattcagtg gcagcgggta tggaacagat tttaccctca caattaataa catagaatct 240
gaggatgctg catattactt ctgtctacaa catgataatt tcccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 402
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

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

<210> 403
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 403
caagacattg atgatgat 18

<210> 404
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 404
Gln Asp Ile Asp Asp Asp
 1   5

<210> 405
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 405
gaagctact   9

<210> 406
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 406
Glu Ala Thr
 1

<210> 407
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 407
ctacaacatg ataatttccc gtacact   27

<210> 408
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 408
Leu Gln His Asp Asn Phe Pro Tyr Thr
 1   5

<210> 409
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 409
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctgggtt caccttcagt aattatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcactt atatggtatg atggaagtaa taaaaactat 180
acagagtccg tgaagggccg attcaccatc tccagagaca attccgaaaa cacactgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt atttctgtgc gagcgagatc 300
gcagctcgtc cttttgagta ttggggccag ggaaccatgg tcaccgtctc ctca 354

<210> 410
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

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

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

<220>
<223> synthetic

<400> 411
gggttcacct tcagtaatta tggc 24

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

<220>
<223> synthetic

<400> 412
Gly Phe Thr Phe Ser Asn Tyr Gly
1 5

<210> 413
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 413
atatggtatg atggaagtaa taaa 24

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

<220>
<223> synthetic

<400> 414
Ile Trp Tyr Asp Gly Ser Asn Lys
1 5

<210> 415
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 415
gcgagcgaga tcgcagctcg tccttttgag tat 33

<210> 416
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 416
Ala Ser Glu Ile Ala Ala Arg Pro Phe Glu Tyr
 1   5   10

<210> 417
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 417
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggctagtca gagcattagc aactatttag attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccaatt tggaaactgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat tttactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacag gctaacaatt tcccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 418
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 418
Asp Ile Leu 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 Ser Ile Ser Asn Tyr
            20   25   30
Leu Asp Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys 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 Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Asn Phe Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

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

<220>
<223> synthetic

<400> 419
cagagcatta gcaactat 18

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

<220>
<223> synthetic

<400> 420
Gln Ser Ile Ser Asn Tyr
1 5

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

<220>
<223> synthetic

<400> 421
gctgcatcc 9

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

<220>
<223> synthetic

<400> 422
Ala Ala Ser
1

<210> 423
<211> 27

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 423
caacaggcta acaatttccc gtacact 27

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

<220>
<223> synthetic

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

<210> 425
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 425
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcactt atatggtttg atggaagtaa taaaaactat 180
acagactccg tgaagggtcg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga gtagcctgag agccgaagac acggctgtgt attattgtgc gacagagata 300
gcagctcgtc cttttgagta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 426
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

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

35 40 45

Ala Leu Ile Trp Phe Asp Gly Ser Asn Lys Asn Tyr Thr 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 Ser Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 427
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 427
ggattcacct tcagtagcta tggc 24

<210> 428
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 428
Gly Phe Thr Phe Ser Ser Tyr Gly
1 5

<210> 429
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 429
atatggtttg atggaagtaa taaa 24

<210> 430
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 430
Ile Trp Phe Asp Gly Ser Asn Lys
 1   5

<210> 431
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 431
gcgacagaga tagcagctcg tccttttgag tac   33

<210> 432
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 432
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr
 1   5   10

<210> 433
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 433
gacatcgtga tgacccagtc tccatccttc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgct gggccagtca gggcattagc agttatttag cctggtatca gcaaaaacca 120
gggaaagccc ctaagctcct gatctatgtt gcatccactt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacag cttaataatt accctcacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 434
<211> 108
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 434
Asp Ile Val Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Trp Ala Ser Gln Gly Ile Ser Ser Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Val 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 Asn Tyr Pro His
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 435
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 435
cagggcatta gcagttat   18

<210> 436
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 436
Gln Gly Ile Ser Ser Tyr
 1   5

<210> 437
<211> 9
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 437
gttgcatcc 9

<210> 438
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 438
Val Ala Ser
 1

<210> 439
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 439
caacagctta ataattaccc tcacact 27

<210> 440
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 440
Gln Gln Leu Asn Asn Tyr Pro His Thr
 1   5

<210> 441
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 441
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60

tcctgtgcag cgtctggatt caccttcagt aactatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcacta atatggtatg atggaagtaa taaaaactat 180
acagactccg tgaagggtcg attcaccata tccagagaca attccaagaa cacactgtat 240
ctccaaatga gcagcctgag agccgaagac acggctgtat attattgtgc gacagaaata 300
gcagctcgtc cttttgaata ttggggccag ggaaccatgg tcaccgtctc ctca 354

<210> 442
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 442
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ala Leu Ile Trp Tyr Asp Gly Ser Asn Lys Asn Tyr Thr 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 Ser Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Thr
100 105 110
Met Val Thr Val Ser Ser
115

<210> 443
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 443
ggattcacct tcagtaacta tggc 24

<210> 444
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 444
Gly Phe Thr Phe Ser Asn Tyr Gly
 1   5

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

<220>
<223> synthetic

<400> 445
atatggtatg atggaagtaa taaa   24

<210> 446
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 446
Ile Trp Tyr Asp Gly Ser Asn Lys
 1   5

<210> 447
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 447
gcgacagaaa tagcagctcg tccttttgaa tat   33

<210> 448
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 448
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr
 1   5   10

<210> 449
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 449
gacatcgtgc tgacccagtc tccagcattc atgtcagcga ctccaggaga caaagtcaac 60
atctcctgca aagccagcca agacattgat gatgatatga actggtacca acagaaacca 120
ggagaagctg ctattttcat tattcaagaa gctactactc tcgttcctgg aatctcacct 180
cgattcagtg gcagcgggta tggaacagat tttaccctca caattaataa catagaatct 240
gaggatgctg catattactt ctgtctacaa catgataatt tcccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 450
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

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

<210> 451
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 451
caagacattg atgatgat 18

<210> 452
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 452
Gln Asp Ile Asp Asp Asp
 1   5

<210> 453
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 453
gaagctact 9

<210> 454
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 454
Glu Ala Thr
 1

<210> 455
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 455
ctacaacatg ataatttccc gtacact 27

<210> 456
<211> 9
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 456
Leu Gln His Asp Asn Phe Pro Tyr Thr
 1   5

<210> 457
<211> 384
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 457
gaggtgcagc tggtggagtc tgggggaggt gtggtacggc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgct gattatggaa tgaactgggt ccgccaagtt 120
ccagggaagg gactggagtg ggtctctggt attaattata agggtgatag tacaaattat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acaatcttag agccgaggac acggccttgt atcactgtgc gagagaaatt 300
tattgtatta atggtgtatg ttatacggac tactactacg gtatggacgt ctggggccaa 360
gggaccacgg tcaccgtctc ctca   384

<210> 458
<211> 128
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 458
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ala Asp Tyr
            20   25   30
Gly Met Asn Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Asn Tyr Lys Gly Asp Ser Thr Asn 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 Asn Leu Arg Ala Glu Asp Thr Ala Leu Tyr His Cys
                85   90   95
Ala Arg Glu Ile Tyr Cys Ile Asn Gly Val Cys Tyr Thr Asp Tyr Tyr
            100   105   110
Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

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

<220>
<223> synthetic

<400> 459
ggattcacct ttgctgatta tgga 24

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

<220>
<223> synthetic

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

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

<220>
<223> synthetic

<400> 461
attaattata agggtgatag taca 24

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

<220>
<223> synthetic

<400> 462
Ile Asn Tyr Lys Gly Asp Ser Thr
 1 5

<210> 463
<211> 63

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 463
gcgagagaaa tttattgtat taatggtgta tgttatacgg actactacta cggtatggac 60
gtc 63

<210> 464
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 464
Ala Arg Glu Ile Tyr Cys Ile Asn Gly Val Cys Tyr Thr Asp Tyr Tyr
1 5 10 15
Tyr Gly Met Asp Val
20

<210> 465
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 465
gacatcctga tgacccagtc tccatcttcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaaggca gagcattaac agctatttaa attggtatca acagaaacca 120
gggaaagccc ctaaactcct catctatgtt gcatccagtt tgcaaagcgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcaacag tctgcagcct 240
gaggatttcg caatttattt ctgtcaacag agttacagta ccccgatcac cttcggccaa 300
gggaccaaac tggagatcaa acga 324

<210> 466
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 466
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

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Asp Arg Val Thr Ile Thr Cys Arg Ala Arg Gln Ser Ile Asn Ser Tyr
            20                  25                  30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Val Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Ile Tyr Phe Cys Gln Gln Ser Tyr Ser Thr Pro Ile
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
            100                 105
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<210> 467
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 467
cagagcatta acagctat 18

<210> 468
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 468
Gln Ser Ile Asn Ser Tyr
 1   5

<210> 469
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 469
gttgcatcc 9

<210> 470
<211> 3
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 470
Val Ala Ser
 1

<210> 471
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 471
caacagagtt acagtacccc gatcacc 27

<210> 472
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 472
Gln Gln Ser Tyr Ser Thr Pro Ile Thr
 1   5

<210> 473
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 473
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt aactatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcacta atatggtttg atggaagtaa taaaaactat 180
acagactccg tgaagggtcg attcaccata tccagagaca attccaagaa cacactgtat 240
ctccaaatga gcagcctgag agccgaagac acggctgtat attattgtgc gacagaaata 300
gcagctcgtc cttttgaata ttggggccag ggaaccacgg tcaccgtctc ctca 354

<210> 474
<211> 118

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 474
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Leu Ile Trp Phe Asp Gly Ser Asn Lys Asn Tyr Thr 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 Ser Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Thr
            100   105   110
Thr Val Thr Val Ser Ser
        115

<210> 475
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 475
ggattcacct tcagtaacta tggc   24

<210> 476
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 476
Gly Phe Thr Phe Ser Asn Tyr Gly
 1   5

<210> 477
<211> 24
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 477
atatggtttg atggaagtaa taaa 24

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

<220>
<223> synthetic

<400> 478
Ile Trp Phe Asp Gly Ser Asn Lys
 1 5

<210> 479
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 479
gcgacagaaa tagcagctcg tccttttgaa tat 33

<210> 480
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 480
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr
 1 5 10

<210> 481
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 481
gacatcgtga tgacccagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca agtctagtca gagcctcctt catagtaatg gatacaacta tttggattgg 120
tacctgcaga agccagggca gtctccacag ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcagagtgg aggctgagga tgttggggtt tattactgca tgcaagctct acaaaatccg 300
tacacttttg gccaggggac caaggtggag atcaaacga 339

<210> 482
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 482
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu His Ser
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
                85   90   95
Leu Gln Asn Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110
Arg

<210> 483
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 483
cagagcctcc ttcatagtaa tggatacaac tat 33

<210> 484
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 484
Gln Ser Leu Leu His Ser Asn Gly Tyr Asn Tyr
 1   5   10

<210> 485
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 485
ttgggttct   9

<210> 486
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 486
Leu Gly Ser
 1

<210> 487
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 487
atgcaagctc tacaaaatcc gtacact   27

<210> 488
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 488

Met Gln Ala Leu Gln Asn Pro Tyr Thr
 1   5

<210> 489
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 489
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcactt atatggtttg atggaagtaa taaaaactat 180
acagactccg tgaagggtcg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga gtagcctgag agccgaagac acggctgtgt attattgtgc gacagagata 300
gcagctcgtc cttttgagta ctggggccag ggaaccctgg tcaccgtctc ctca   354

<210> 490
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 490
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Leu Ile Trp Phe Asp Gly Ser Asn Lys Asn Tyr Thr 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 Ser Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Thr
            100   105   110
Leu Val Thr Val Ser Ser
        115

<210> 491
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 491
ggattcacct tcagtagcta tggc 24

<210> 492
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 492
Gly Phe Thr Phe Ser Ser Tyr Gly
1 5

<210> 493
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 493
atatggtttg atggaagtaa taaa 24

<210> 494
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 494
Ile Trp Phe Asp Gly Ser Asn Lys
1 5

<210> 495
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 495

gcgacagaga tagcagctcg tccttttgag tac 33

<210> 496
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 496
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr
 1 5 10

<210> 497
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 497
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 498
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 498
Asp Ile Leu 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 Ser Ile Ser Ser Tyr
 20 25 30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Tyr
 85 90 95

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

<210> 499
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 499
cagagcatta gcagctat 18

<210> 500
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 500
Gln Ser Ile Ser Ser Tyr
1 5

<210> 501
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 501
gctgcatcc 9

<210> 502
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 502
Ala Ala Ser
1

<210> 503
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 503
caacagagtt acagtacccc gtacact 27

<210> 504
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 504
Gln Gln Ser Tyr Ser Thr Pro Tyr Thr
1 5

<210> 505
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 505
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctgggtt caccttcagt aattatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcactt atatggtatg atggaagtaa taaaaactat 180
acagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacactgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt atttctgtgc gagcgagatc 300
gcagctcgtc cttttgagta ctggggccag ggaaccatgg tcaccgtctc ctca 354

<210> 506
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 506
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr

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            20                  25                  30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ala Leu Ile Trp Tyr Asp Gly Ser Asn Lys Asn Tyr Thr 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 Ser Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Thr
            100                 105                 110
Met Val Thr Val Ser Ser
        115
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<210> 507
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 507
gggttcacct tcagtaatta tggc 24

<210> 508
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 508
Gly Phe Thr Phe Ser Asn Tyr Gly
 1   5

<210> 509
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 509
atatggtatg atggaagtaa taaa 24

<210> 510
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 510
Ile Trp Tyr Asp Gly Ser Asn Lys
 1   5

<210> 511
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 511
gcgagcgaga tcgcagctcg tccttttgag tac   33

<210> 512
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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<400> 512
Ala Ser Glu Ile Ala Ala Arg Pro Phe Glu Tyr
 1   5   10

<210> 513
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 513
gacatcgtga tgacccagtc tccttcctcc ctgtctgcat ctttaggaga cagagtcacc 60
ttcacttgcc gggcaagtca gagcattcgc agccatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatact acatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 514

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

<220>
<223> synthetic

<400> 514
Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Leu Gly
 1   5   10   15
Asp Arg Val Thr Phe Thr Cys Arg Ala Ser Gln Ser Ile Arg Ser His
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Thr Thr Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 515
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 515
cagagcattc gcagccat 18

<210> 516
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 516
Gln Ser Ile Arg Ser His
 1   5

<210> 517
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 517
actacatcc 9

<210> 518
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 518
Thr Thr Ser
1

<210> 519
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 519
caacagagtt acagtacccc gtacact 27

<210> 520
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 520
Gln Gln Ser Tyr Ser Thr Pro Tyr Thr
1 5

<210> 521
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 521
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggggac cctgagactc 60
tcctgtgcag cctctggatt cacctttagc acctatgcca tgacctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcaagt attagtagta gtggtgttag cacatactac 180
gcagactccg tgaagggccg gttcaccatt tccagagaca attccaagaa cacggtgtat 240
ctgcacatga acagcctgag agccgaggac acggccctat attactgtgc gcaagggagt 300
agctggtact actttgacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 522
<211> 118
<212> PRT
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<220>
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<400> 522
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Thr Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
            20   25   30
Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ser Ile Ser Ser Ser Gly Val 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 Val Tyr
65   70   75   80
Leu His Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Gln Gly Ser Ser Trp Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
            100   105   110
Leu Val Thr Val Ser Ser
        115

<210> 523
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 523
ggattcacct ttagcaccta tgcc 24

<210> 524
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 524
Gly Phe Thr Phe Ser Thr Tyr Ala
 1   5

<210> 525
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 525
attagtagta gtggtgttag caca   24

<210> 526
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 526
Ile Ser Ser Ser Gly Val Ser Thr
 1   5

<210> 527
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 527
gcgcaaggga gtagctggta ctactttgac tac   33

<210> 528
<211> 11
<212> PRT
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<220>
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<400> 528
Ala Gln Gly Ser Ser Trp Tyr Tyr Phe Asp Tyr

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 1               5                  10


<210> 529
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 529
gacatcgtga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag cataatagtt accctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga                                        324

<210> 530
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 530
Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
            20                  25                  30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
        35                  40                  45
Tyr 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 Pro
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105


<210> 531
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic
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<400> 531
cagggcatta gaaatgat 18

<210> 532
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 532
Gln Gly Ile Arg Asn Asp
1 5

<210> 533
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 533
gctgcatcc 9

<210> 534
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 534
Ala Ala Ser
1

<210> 535
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 535
ctacagcata atagttaccc tccgacg 27

<210> 536

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

<220>
<223> synthetic

<400> 536
Leu Gln His Asn Ser Tyr Pro Pro Thr
 1   5

<210> 537
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 537
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggcg 120
ccaggcaagg ggctggagtg ggtggcactt atatggtatg atggaagtaa taaaaactat 180
acagactccg tgaagggtcg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga gcagcctgag agccgaggac acggctgtgt attattgtgc gacagagata 300
gcagctcgtc cttttgagta ctggggccag ggaaccctgg tcaccgtctc ctca   354

<210> 538
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 538
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Leu Ile Trp Tyr Asp Gly Ser Asn Lys Asn Tyr Thr 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 Ser Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Thr
            100   105   110
Leu Val Thr Val Ser Ser

115

<210> 539
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 539
ggattcacct tcagtagcta tggc 24

<210> 540
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 540
Gly Phe Thr Phe Ser Ser Tyr Gly
1 5

<210> 541
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 541
atatggtatg atggaagtaa taaa 24

<210> 542
<211> 8
<212> PRT
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<220>
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<400> 542
Ile Trp Tyr Asp Gly Ser Asn Lys
1 5

<210> 543

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

<220>
<223> synthetic

<400> 543
gcgacagaga tagcagctcg tccttttgag tac 33

<210> 544
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 544
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr
1 5 10

<210> 545
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 545
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atcacttgcc gggcaagtca gagtattaag atctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaggtcct gatctatggt gcatccagtt tacaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tcttcaacct 240
gaagattttg caacttactt ctgtcaacag agttacagta ccccattcac tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 546
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 546
Asp Ile Leu 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 Ser Ile Lys Ile Tyr
20 25 30

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Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35                  40                  45
Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Ser Tyr Ser Thr Pro Phe
                85                  90                  95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 547
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 547
cagagtatta agatctat 18

<210> 548
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 548
Gln Ser Ile Lys Ile Tyr
 1   5

<210> 549
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 549
ggtgcatcc 9

<210> 550
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 550
Gly Ala Ser
 1

<210> 551
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 551
caacagagtt acagtacccc attcact 27

<210> 552
<211> 9
<212> PRT
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<220>
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<400> 552
Gln Gln Ser Tyr Ser Thr Pro Phe Thr
 1 5

<210> 553
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
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<400> 553
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt aattatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcactt atatggtatg atggaagtaa taaaaactat 180
acagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacactgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt atttctgtgc gagcgagatc 300
gcagctcgtc cttttgagta ctggggccag ggaaccatgg tcaccgtctc ctca 354

<210> 554
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 554
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Leu Ile Trp Tyr Asp Gly Ser Asn Lys Asn Tyr Thr 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 Ser Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Thr
            100   105   110
Met Val Thr Val Ser Ser
        115

<210> 555
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 555
ggattcacct tcagtaatta tggc   24

<210> 556
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 556
Gly Phe Thr Phe Ser Asn Tyr Gly
 1   5

<210> 557
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 557
atatggtatg atggaagtaa taaa 24

<210> 558
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 558
Ile Trp Tyr Asp Gly Ser Asn Lys
1 5

<210> 559
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 559
gcgagcgaga tcgcagctcg tccttttgag tac 33

<210> 560
<211> 11
<212> PRT
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<220>
<223> synthetic

<400> 560
Ala Ser Glu Ile Ala Ala Arg Pro Phe Glu Tyr
1 5 10

<210> 561
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 561

gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatatta ctgtcaacag tatgataatc tcccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 562
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 562
Asp Ile Leu 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 Ser 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 Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asn Leu Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 563
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 563
caggacatta gcaactat 18

<210> 564
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 564

Gln Asp Ile Ser Asn Tyr
 1   5

<210> 565
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 565
gatgcatcc 9

<210> 566
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 566
Asp Ala Ser
 1

<210> 567
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 567
caacagtatg ataatctccc gctcact 27

<210> 568
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 568
Gln Gln Tyr Asp Asn Leu Pro Leu Thr
 1   5

<210> 569
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 569
gaggtgcagc tggtggagtc tgggggaggc gaggtccagc ctgggggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt aactatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcacta atatggtatg atggaagtaa taaaaactat 180
acagactccg tgaagggtcg attcaccata tccagagaca attccaagaa cactctgtat 240
ctccaaatga gcagcctgag agccgaagac acggctgtat attattgtgc gacagaaata 300
gcagctcgtc cttttgaata ttggggccag ggaaccacgg tcaccgtctc ctca 354

<210> 570
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 570
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Glu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Leu Ile Trp Tyr Asp Gly Ser Asn Lys Asn Tyr Thr 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 Ser Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Thr
            100   105   110
Thr Val Thr Val Ser Ser
        115

<210> 571
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 571

ggattcacct tcagtaacta tggc 24

<210> 572
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 572
Gly Phe Thr Phe Ser Asn Tyr Gly
 1 5

<210> 573
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 573
atatggtatg atggaagtaa taaa 24

<210> 574
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 574
Ile Trp Tyr Asp Gly Ser Asn Lys
 1 5

<210> 575
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 575
gcgacagaaa tagcagctcg tccttttgaa tat 33

<210> 576
<211> 11

<212> PRT
<213> Artificial Sequence

<220>
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<400> 576
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr
 1   5   10

<210> 577
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 577
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag cataatagtt acccgtacac ttttggccag 300
gggaccaagg tggaaatcaa acga   324

<210> 578
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 578
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
            20   25   30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
        35   40   45
Tyr 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> 579
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 579
cagggcatta gaaatgat 18

<210> 580
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 580
Gln Gly Ile Arg Asn Asp
 1 5

<210> 581
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 581
gctgcatcc 9

<210> 582
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 582
Ala Ala Ser
 1

<210> 583
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 583
ctacagcata atagttaccc gtacact 27

<210> 584
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 584
Leu Gln His Asn Ser Tyr Pro Tyr Thr
1 5

<210> 585
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 585
gaggtgcagc tggtggagtc tgggggaggc ttggtccagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttaga agctatttga tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtggccaac ataaagcaag atggaagtga gaaatactat 180
gtggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctcactgtat 240
ctgcaaatga acaccctgag agccgaggac acggctgtgt attactgtgc gagagcccat 300
tacgattttt ggagtgcttg ggactacggt atggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 586
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 586
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 Arg Ser Tyr
20 25 30
Leu Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

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Ala Asn Ile Lys Gln Asp Gly Ser Glu Lys Tyr Tyr Val 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 Thr Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Ala His Tyr Asp Phe Trp Ser Ala Trp Asp Tyr Gly Met Asp
            100                 105                 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120
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<210> 587
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 587
ggattcacct ttagaagcta tttg 24

<210> 588
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 588
Gly Phe Thr Phe Arg Ser Tyr Leu
 1   5

<210> 589
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 589
ataaagcaag atggaagtga gaaa 24

<210> 590
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 590
Ile Lys Gln Asp Gly Ser Glu Lys
 1   5

<210> 591
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 591
gcgagagccc attacgattt ttggagtgct tgggactacg gtatggacgt c   51

<210> 592
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 592
Ala Arg Ala His Tyr Asp Phe Trp Ser Ala Trp Asp Tyr Gly Met Asp
 1   5   10   15
Val

<210> 593
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 593
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atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ccccgctcac tttcggccga 300
gggaccaagg tggagatcaa acga   324

<210> 594
<211> 108

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 594
Asp Ile Leu 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 Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Leu
                85   90   95
Thr Phe Gly Arg Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 595
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 595
cagagcatta gcagctat   18

<210> 596
<211> 6
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<220>
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<400> 596
Gln Ser Ile Ser Ser Tyr
 1   5

<210> 597
<211> 9
<212> DNA
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<220>
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<400> 597
gctgcatcc 9

<210> 598
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 598
Ala Ala Ser
1

<210> 599
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 599
caacagagtt acagtacccc gctcact 27

<210> 600
<211> 9
<212> PRT
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<220>
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<400> 600
Gln Gln Ser Tyr Ser Thr Pro Leu Thr
1 5

<210> 601
<211> 384
<212> DNA
<213> Artificial Sequence

<220>
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<400> 601

gaggtgcagc tggtggagtc tgggggaggt gtggtacggc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgct gattatggaa tgaactgggt ccgccaagtt 120
ccagggaagg gactggagtg ggtctctggt attaattata agggtgatag tacaaattat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acaatcttag agccgaggac acggccttgt atcactgtgc gagagaaatt 300
tattgtatta atggtgtatg ttatacggac tactactacg gtatggacgt ctggggccaa 360
gggaccacgg tcaccgtctc ctca 384

<210> 602
<211> 128
<212> PRT
<213> Artificial Sequence

<220>
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<400> 602
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ala Asp Tyr
            20   25   30
Gly Met Asn Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Asn Tyr Lys Gly Asp Ser Thr Asn 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 Asn Leu Arg Ala Glu Asp Thr Ala Leu Tyr His Cys
                85   90   95
Ala Arg Glu Ile Tyr Cys Ile Asn Gly Val Cys Tyr Thr Asp Tyr Tyr
            100   105   110
Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 603
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 603
ggattcacct ttgctgatta tgga 24

<210> 604
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 604
Gly Phe Thr Phe Ala Asp Tyr Gly
 1   5

<210> 605
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 605
attaattata agggtgatag taca   24

<210> 606
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 606
Ile Asn Tyr Lys Gly Asp Ser Thr
 1   5

<210> 607
<211> 63
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 607
gcgagagaaa tttattgtat taatggtgta tgttatacgg actactacta cggtatggac 60
gtc   63

<210> 608
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 608

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Ala Arg Glu Ile Tyr Cys Ile Asn Gly Val Cys Tyr Thr Asp Tyr Tyr
 1               5                  10                  15
Tyr Gly Met Asp Val
            20
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<210> 609
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 609
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatatta ctgtcaacag tatgataatc tccccatatt cactttcggc 300
cctgggacca aggtggagat caaacga 327

<210> 610
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
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<400> 610
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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Ser 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 Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asn Leu Pro Ile
                85                  90                  95
Phe Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 611
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 611
caggacatta gcaactat 18

<210> 612
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 612
Gln Asp Ile Ser Asn Tyr
 1 5

<210> 613
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 613
gatgcatcc 9

<210> 614
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 614
Asp Ala Ser
 1

<210> 615
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 615

caacagtatg ataatctccc catattcact 30

<210> 616
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 616
Gln Gln Tyr Asp Asn Leu Pro Ile Phe Thr
 1 5 10

<210> 617
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 617
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgctg tctatggtgg gtccttcagt ggtttctact ggacctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcagtcata gtggaaacac cgactacatc 180
ccgtccctca agagtcgagt caccatatca ttagacacgt ccaagaacca gttctccctg 240
aagctgaact ctgtgaccgc cgcggacacg gctttttatt actgtgcgag aggtcctttt 300
tacgatattt tgactggtta tccctttgac tactggggcc agggaaccac ggtcaccgtc 360
tcctca 366

<210> 618
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 618
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1 5 10 15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Gly Phe
 20 25 30
Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45
Gly Glu Ile Ser His Ser Gly Asn Thr Asp Tyr Ile Pro Ser Leu Lys
 50 55 60
Ser Arg Val Thr Ile Ser Leu Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80
Lys Leu Asn Ser Val Thr Ala Ala Asp Thr Ala Phe Tyr Tyr Cys Ala

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

<210> 619
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 619
ggtgggtcct tcagtggttt ctac 24

<210> 620
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 620
Gly Gly Ser Phe Ser Gly Phe Tyr
1 5

<210> 621
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 621
atcagtcata gtggaaacac c 21

<210> 622
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 622
Ile Ser His Ser Gly Asn Thr

 1   5

<210> 623
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 623
gcgagaggtc ctttttacga tattttgact ggttatccct ttgactac   48

<210> 624
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 624
Ala Arg Gly Pro Phe Tyr Asp Ile Leu Thr Gly Tyr Pro Phe Asp Tyr
 1   5   10   15

<210> 625
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 625
gacatcgtga tgacccagtc tccagccatt ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctctt catctatggt gcatccacca gggccactgg tatcccagcc 180
agattcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcagcag tataataact ggcctctcac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 626
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 626

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Asp Ile Val Met Thr Gln Ser Pro Ala Ile Leu Ser Val Ser Pro Gly
 1               5                  10                  15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Phe Ile
        35                  40                  45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65                  70                  75                  80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 627
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 627
cagagtgtta gcagcaac 18

<210> 628
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 628
Gln Ser Val Ser Ser Asn
 1   5

<210> 629
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 629
ggtgcatcc 9

<210> 630

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

<220>
<223> synthetic

<400> 630
Gly Ala Ser
 1

<210> 631
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 631
cagcagtata ataactggcc tctcact 27

<210> 632
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 632
Gln Gln Tyr Asn Asn Trp Pro Leu Thr
 1 5

<210> 633
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 633
caggtgcagc tggtggagtc tgggggagac ttggtccagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttact agctattgga tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtggccaat ataaaacaag atggaactga gaactactat 180
gtggactctg tgaagggccg attcaccatt tccagagaca atgccaagaa ctcactgtat 240
ctgcaaatga gcagcctgag agccgaggac acggctgtgt attactgtgc gagagatcac 300
cccgtgggag ctcctttctt tgactactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 634
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 634
Gln Val Gln Leu Val Glu Ser Gly Gly Asp Leu Val Gln 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
Trp Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Asn Ile Lys Gln Asp Gly Thr Glu Asn Tyr Tyr Val 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 Ser Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp His Pro Val Gly Ala Pro Phe Phe Asp Tyr Trp Gly Gln
            100   105   110
Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 635
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 635
ggattcacct ttactagcta ttgg   24

<210> 636
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 636
Gly Phe Thr Phe Thr Ser Tyr Trp
 1   5

<210> 637
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 637
ataaaacaag atggaactga gaac 24

<210> 638
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 638
Ile Lys Gln Asp Gly Thr Glu Asn
 1 5

<210> 639
<211> 39
<212> DNA
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<220>
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<400> 639
gcgagagatc accccgtggg agctcctttc tttgactac 39

<210> 640
<211> 13
<212> PRT
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<220>
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<400> 640
Ala Arg Asp His Pro Val Gly Ala Pro Phe Phe Asp Tyr
 1 5 10

<210> 641
<211> 324
<212> DNA
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<220>
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<400> 641
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc tactatttaa attggtatca acagaaacca 120
gggaaagccc ctaagctcct gatctatagt gaatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacacta ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 642
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 642
Asp Ile Leu 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 Ser Ile Ser Tyr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ser Glu Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Thr Thr Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 643
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 643
cagagcatta gctactat 18

<210> 644
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 644
Gln Ser Ile Ser Tyr Tyr
 1   5

<210> 645
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 645
agtgaatcc   9

<210> 646
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 646
Ser Glu Ser
 1

<210> 647
<211> 27
<212> DNA
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<220>
<223> synthetic

<400> 647
caacagagtt acactacccc gtacact   27

<210> 648
<211> 9
<212> PRT
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<220>
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<400> 648
Gln Gln Ser Tyr Thr Thr Pro Tyr Thr
 1   5

<210> 649
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 649
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgctg tctatggtgg gtccttcaat ggtttctact ggacctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcagtcata gtggaaacac cgactacatc 180
ccgtccctca agagtcgagt caccatatca atagacacgt ccaagagcca gttcttcctg 240
aagctgaact ctgtgaccgc cgcggacacg gctttttatt actgtgcgag gggtcccttt 300
tacgatattt tgactggcta ccccctttgac tactggggcc agggaaccac ggtcaccgtc 360
tcctca   366

<210> 650
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 650
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Asn Gly Phe
            20   25   30
Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Ser His Ser Gly Asn Thr Asp Tyr Ile Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Ile Asp Thr Ser Lys Ser Gln Phe Phe Leu
65   70   75   80
Lys Leu Asn Ser Val Thr Ala Ala Asp Thr Ala Phe Tyr Tyr Cys Ala
                85   90   95
Arg Gly Pro Phe Tyr Asp Ile Leu Thr Gly Tyr Pro Phe Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 651
<211> 24
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 651
ggtgggtcct tcaatggttt ctac 24

<210> 652
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 652
Gly Gly Ser Phe Asn Gly Phe Tyr
1 5

<210> 653
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 653
atcagtcata gtggaaacac c 21

<210> 654
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 654
Ile Ser His Ser Gly Asn Thr
1 5

<210> 655
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 655
gcgaggggtc ccttttacga tattttgact ggctacccct ttgactac 48

<210> 656
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 656
Ala Arg Gly Pro Phe Tyr Asp Ile Leu Thr Gly Tyr Pro Phe Asp Tyr
 1   5   10   15

<210> 657
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 657
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ctctcctgca gggccagtca gagtattgac agccacttag cctggtacct gcagaaacct 120
ggccaggctc ccaggctctt catctatggt gcatcctcca gggccactgg tatcccagtc 180
agattcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcagcag tataatagtt ggcctctcac tttcggcgga 300
gggaccaagc tggagatcaa acga 324

<210> 658
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 658
Asp Ile Val Met Thr Gln Ser Pro Ala Ile Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Asp Ser His
            20   25   30
Leu Ala Trp Tyr Leu Gln Lys Pro Gly Gln Ala Pro Arg Leu Phe Ile
        35   40   45
Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Val Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80

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

<210> 659
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 659
cagagtattg acagccac 18

<210> 660
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 660
Gln Ser Ile Asp Ser His
1 5

<210> 661
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 661
ggtgcatcc 9

<210> 662
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 662
Gly Ala Ser
1

<210> 663
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 663
cagcagtata atagttggcc tctcact 27

<210> 664
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 664
Gln Gln Tyr Asn Ser Trp Pro Leu Thr
1 5

<210> 665
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 665
gaggtgcagc tggtggagtc tgggggaggc ttggtccagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt catgtttagt ggttattgga tgaactgggt ccgtcaggct 120
ccagggaagg ggctggagtg ggtggccaac ataaagcaag atggaggtga gaaatactat 180
gtggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctcactgtat 240
ctgcaaatga acagcctgag agccgaggac atggctgtgt attactgtgc gagagatcac 300
ccagtgggag ctcctttctt tgactactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 666
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 666

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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 Met Phe Ser Gly 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 Ile Lys Gln Asp Gly Gly Glu Lys Tyr Tyr Val 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 Met Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Asp His Pro Val Gly Ala Pro Phe Phe Asp Tyr Trp Gly Gln
            100                 105                 110
Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 667
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 667
ggattcatgt ttagtggtta ttgg 24

<210> 668
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 668
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Gly Phe Met Phe Ser Gly Tyr Trp
 1               5
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<210> 669
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 669
ataaagcaag atggaggtga gaaa 24

<210> 670
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 670
Ile Lys Gln Asp Gly Gly Glu Lys
 1   5

<210> 671
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
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<400> 671
gcgagagatc acccagtggg agctcctttc tttgactac   39

<210> 672
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 672
Ala Arg Asp His Pro Val Gly Ala Pro Phe Phe Asp Tyr
 1   5   10

<210> 673
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 673
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc tactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctgtgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcactggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttactt ctgtcaacag agttacagta ccccgtacac ttttggccag 300

gggaccaagg tggagatcaa acga 324

<210> 674
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 674
Asp Ile Leu 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 Ser Ile Ser Tyr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Cys Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Thr 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 Phe Cys Gln Gln Ser Tyr Ser Thr Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 675
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 675
cagagcatta gctactat 18

<210> 676
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 676
Gln Ser Ile Ser Tyr Tyr
 1   5

<210> 677

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

<220>
<223> synthetic

<400> 677
gctgcatcc 9

<210> 678
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 678
Ala Ala Ser
1

<210> 679
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 679
caacagagtt acagtacccc gtacact 27

<210> 680
<211> 9
<212> PRT
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<220>
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<400> 680
Gln Gln Ser Tyr Ser Thr Pro Tyr Thr
1 5

<210> 681
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 681
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgctg tctatggtgg gtccttcagt ggtttctact ggacctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcagtcata gtggaaacac cgactacatc 180
ccgtccctca agagtcgagt caccatatca ttagacacgt ccaagaacca gttctccctg 240
aagctgaact ctgtgaccgc cgcggacacg gctttttatt actgtgcgag aggtcctttt 300
tacgatattt tgactggtta ccccctttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 682
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 682
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Gly Phe
            20   25   30
Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Ser His Ser Gly Asn Thr Asp Tyr Ile Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Leu Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Asn Ser Val Thr Ala Ala Asp Thr Ala Phe Tyr Tyr Cys Ala
                85   90   95
Arg Gly Pro Phe Tyr Asp Ile Leu Thr Gly Tyr Pro Phe Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 683
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 683
ggtgggtcct tcagtggttt ctac 24

<210> 684
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
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<400> 684
Gly Gly Ser Phe Ser Gly Phe Tyr
 1   5

<210> 685
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 685
atcagtcata gtggaaacac c   21

<210> 686
<211> 7
<212> PRT
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<220>
<223> synthetic

<400> 686
Ile Ser His Ser Gly Asn Thr
 1   5

<210> 687
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
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<400> 687
gcgagaggtc ctttttacga tattttgact ggttacccct ttgactac   48

<210> 688
<211> 16
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 688
Ala Arg Gly Pro Phe Tyr Asp Ile Leu Thr Gly Tyr Pro Phe Asp Tyr
 1   5   10   15

<210> 689
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 689
gacatcgtga tgacccagtc tccagccatt ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctctt catctatggt gcatccacca gggccactgg tatcccagcc 180
agattcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcagcag tatgatacct ggcctctcac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 690
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 690
Asp Ile Val Met Thr Gln Ser Pro Ala Ile Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Phe Ile
        35   40   45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asp Thr Trp Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 691
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 691
cagagtgtta gcagcaac 18

<210> 692
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 692
Gln Ser Val Ser Ser Asn
 1 5

<210> 693
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 693
ggtgcatcc 9

<210> 694
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 694
Gly Ala Ser
 1

<210> 695
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 695
cagcagtatg atacctggcc tctcact 27

<210> 696
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 696
Gln Gln Tyr Asp Thr Trp Pro Leu Thr
 1 5

<210> 697
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 697
gaggtgcagc tggtggagtc tgggggaggc ttggtccagc cgggggggtc cctgagactc 60
tcctgtgcag cctctggatt catctttagt agctattgga tgaactgggt ccgccagact 120
ccagggaagg ggctggagtg ggtggccaat ataaaacaag atggaactga gaaatattat 180
gtggactctg tgaagggccg attcaccatc tccagagaca atgccaagaa atcactatat 240
ctgcaaatga gcagcctgag agccgaggac acggctgtgt atttctgtgc gagagatcac 300
ccagtgggag ctcctttctt tgactactgg ggccagggaa ccatggtcac cgtctcctca 360

<210> 698
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 698
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 Ser Tyr
 20 25 30
Trp Met Asn Trp Val Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
Ala Asn Ile Lys Gln Asp Gly Thr Glu Lys Tyr Tyr Val Asp Ser Val
 50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Ser Leu Tyr
65 70 75 80

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

<210> 699
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 699
ggattcatct ttagtagcta ttgg 24

<210> 700
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 700
Gly Phe Ile Phe Ser Ser Tyr Trp
1 5

<210> 701
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 701
ataaaacaag atggaactga gaaa 24

<210> 702
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 702

Ile Lys Gln Asp Gly Thr Glu Lys
1 5

<210> 703
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 703
gcgagagatc acccagtggg agctcctttc tttgactac 39

<210> 704
<211> 13
<212> PRT
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<220>
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<400> 704
Ala Arg Asp His Pro Val Gly Ala Pro Phe Phe Asp Tyr
1 5 10

<210> 705
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 705
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagt tactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaacctcct aatctatagt acatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 706
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 706
Asp Ile Leu 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 Ser Ile Ser Tyr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ser Thr Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 707
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 707
cagagcatta gttactat 18

<210> 708
<211> 6
<212> PRT
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<220>
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<400> 708
Gln Ser Ile Ser Tyr Tyr
 1   5

<210> 709
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 709
agtacatcc 9

<210> 710
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 710
Ser Thr Ser
 1

<210> 711
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 711
caacagagtt acagtacccc gtacact 27

<210> 712
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 712
Gln Gln Ser Tyr Ser Thr Pro Tyr Thr
 1   5

<210> 713
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 713
gaggtgcagc tggtggagtc tgggggaggc ttggtccagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt catgtttagt ggttattgga tgaactgggt ccgtcaggct 120
ccagggaagg ggctggagtg ggtggccaac ataaagcaag atggaggtga gaaatactat 180
gtggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctcactgtat 240
ctgcaaatga acagcctgag agccgaggac atggctgtgt attactgtgc gagagatcac 300
ccagtgggag ctcctttctt tgactactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 714
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
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<400> 714
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 Met Phe Ser Gly 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 Ile Lys Gln Asp Gly Gly Glu Lys Tyr Tyr Val 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 Met Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp His Pro Val Gly Ala Pro Phe Phe Asp Tyr Trp Gly Gln
            100   105   110
Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 715
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 715
ggattcatgt ttagtggtta ttgg   24

<210> 716
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 716
Gly Phe Met Phe Ser Gly Tyr Trp
 1   5

<210> 717
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 717
ataaagcaag atggaggtga gaaa 24

<210> 718
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 718
Ile Lys Gln Asp Gly Gly Glu Lys
1 5

<210> 719
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
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<400> 719
gcgagagatc acccagtggg agctcctttc tttgactac 39

<210> 720
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
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<400> 720
Ala Arg Asp His Pro Val Gly Ala Pro Phe Phe Asp Tyr
1 5 10

<210> 721
<211> 324
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 721
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc tactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctgtgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcactggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttactt ctgtcaacag agttacagta ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 722
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 722
Asp Ile Leu 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 Ser Ile Ser Tyr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Cys Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Thr 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 Phe Cys Gln Gln Ser Tyr Ser Thr Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 723
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 723
cagagcatta gctactat 18

<210> 724
<211> 6
<212> PRT

<213> Artificial Sequence

<220>
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<400> 724
Gln Ser Ile Ser Tyr Tyr
 1   5

<210> 725
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 725
gctgcatcc   9

<210> 726
<211> 3
<212> PRT
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<220>
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<400> 726
Ala Ala Ser
 1

<210> 727
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 727
caacagagtt acagtacccc gtacact   27

<210> 728
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 728
Gln Gln Ser Tyr Ser Thr Pro Tyr Thr
 1   5

<210> 729
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 729
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tcctgtgcag cctctggatt catctttagt agctattgga tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtggccaat ataaaacaag atggaactga gaaatattat 180
gtggactctg tgaagggccg attcaccatc tccagagaca atgccaagaa atcactatat 240
ctgcaaatga gcagcctgag agccgaggac acggctgtgt attactgtgc gagagatcac 300
ccagtgggag ctcctttctt tgactactgg ggccagggaa ccatggtcac cgtctcctca 360

<210> 730
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 730
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 Ser 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 Ile Lys Gln Asp Gly Thr Glu Lys Tyr Tyr Val Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Ser Leu Tyr
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 His Pro Val Gly Ala Pro Phe Phe Asp Tyr Trp Gly Gln
            100   105   110
Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 731
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 731
ggattcatct ttagtagcta ttgg 24

<210> 732
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 732
Gly Phe Ile Phe Ser Ser Tyr Trp
1 5

<210> 733
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 733
ataaaacaag atggaactga gaaa 24

<210> 734
<211> 8
<212> PRT
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<220>
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<400> 734
Ile Lys Gln Asp Gly Thr Glu Lys
1 5

<210> 735
<211> 39
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 735
gcgagagatc acccagtggg agctcctttc tttgactac 39

<210> 736
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
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<400> 736
Ala Arg Asp His Pro Val Gly Ala Pro Phe Phe Asp Tyr
 1   5   10

<210> 737
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 737
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atcacttgcc gggcaagtca gagcattagt tactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaacctcct aatctatagt acatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca gcatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 738
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 738
Asp Ile Leu 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 Ser Ile Ser Tyr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ser Thr Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Ser Ser Leu Gln Pro

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

<210> 739
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 739
cagagcatta gttactat 18

<210> 740
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 740
Gln Ser Ile Ser Tyr Tyr
1 5

<210> 741
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 741
agtacatcc 9

<210> 742
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 742
Ser Thr Ser

1

<210> 743
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 743
caacagagtt acagtacccc gtacact 27

<210> 744
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 744
Gln Gln Ser Tyr Ser Thr Pro Tyr Thr
1 5

<210> 745
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 745
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tcctgtgcag cctctggatt cacctttagt ggctattgga tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtggccaat ataaaacacg atggaagtga gaaatactct 180
gtggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctcactgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatcac 300
ccagtgggag ctcctttctt tgactactgg ggtcagggaa tcctggtcac cgtctcctca 360

<210> 746
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 746
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 Gly 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 Ile Lys His Asp Gly Ser Glu Lys Tyr Ser Val 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 Pro Val Gly Ala Pro Phe Phe Asp Tyr Trp Gly Gln
            100   105   110
Gly Ile Leu Val Thr Val Ser Ser
        115   120

<210> 747
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 747
ggattcacct ttagtggcta ttgg 24

<210> 748
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 748
Gly Phe Thr Phe Ser Gly Tyr Trp
 1   5

<210> 749
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 749

ataaaacacg atggaagtga gaaa 24

<210> 750
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 750
Ile Lys His Asp Gly Ser Glu Lys
1 5

<210> 751
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 751
gcgagagatc acccagtggg agctcctttc tttgactac 39

<210> 752
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 752
Ala Arg Asp His Pro Val Gly Ala Pro Phe Phe Asp Tyr
1 5 10

<210> 753
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 753
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagt tactatttaa actggtatca gcagaaacca 120
gggaaagccc caaagctcct gatctatagt tcttccagtt tgcgaggtgg aatcccatca 180
aggttcagtg gcagtgattc tgggacagat ttcactctca ccatcagcag tctgcaacct 240

gaagattttg caacttacta ctgtcaacag agttacagta ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 754
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 754
Asp Ile Leu 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 Ser Ile Ser Tyr Tyr
20 25 30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45
Tyr Ser Ser Ser Ser Leu Arg Gly Gly Ile Pro Ser Arg Phe Ser Gly
50 55 60
Ser Asp 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 Ser Tyr Ser Thr Pro Tyr
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 755
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 755
cagagcatta gttactat 18

<210> 756
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 756
Gln Ser Ile Ser Tyr Tyr
1 5

<210> 757
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 757
agttcttcc 9

<210> 758
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 758
Ser Ser Ser
1

<210> 759
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 759
caacagagtt acagtacccc gtacact 27

<210> 760
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 760
Gln Gln Ser Tyr Ser Thr Pro Tyr Thr
1 5

<210> 761
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 761
caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt aattactact ggagctggat ccgacagccc 120
ccagggaagg gactggagtg gattgggtat atctattaca gtgggaacac caagtacaac 180
ccctccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aacctgacgt ctgtgaccac tgcggacacg gccgtgtatt actgtgcgag agatatagtg 300
gctgcgatta ggcctcactg gtacttcgat ctctggggcc gtggcaccac ggtcaccgtc 360
tcctca 366

<210> 762
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 762
Gln Val Gln Leu Val 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 Asn Thr Lys 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
Asn Leu Thr Ser Val Thr Thr Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Ile Val Ala Ala Ile Arg Pro His Trp Tyr Phe Asp Leu Trp
            100   105   110
Gly Arg Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 763
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 763
ggtggctcca tcagtaatta ctac 24

<210> 764

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

<220>
<223> synthetic

<400> 764
Gly Gly Ser Ile Ser Asn Tyr Tyr
 1   5

<210> 765
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 765
atctattaca gtgggaacac c   21

<210> 766
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 766
Ile Tyr Tyr Ser Gly Asn Thr
 1   5

<210> 767
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 767
gcgagagata tagtggctgc gattaggcct cactggtact tcgatctc   48

<210> 768
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 768
Ala Arg Asp Ile Val Ala Ala Ile Arg Pro His Trp Tyr Phe Asp Leu
 1   5   10   15

<210> 769
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 769
gacatccaga tgacccagtc tccatcctcc ctgtctgcgt ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gaccattaac acctatttaa attggtatca gcagaatcca 120
gggaaagccc ctaaggtcct gatctatgct acatccattt tgctaagtgg ggtcccatcc 180
agattcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagatttta caacttactt ctgtcaacag agttacagta tccctcccac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 770
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 770
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 Thr Ile Asn Thr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Asn Pro Gly Lys Ala Pro Lys Val Leu Ile
        35   40   45
Tyr Ala Thr Ser Ile Leu Leu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Thr Thr Tyr Phe Cys Gln Gln Ser Tyr Ser Ile Pro Pro
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 771
<211> 18
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 771
cagaccatta acacctat 18

<210> 772
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 772
Gln Thr Ile Asn Thr Tyr
 1   5

<210> 773
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 773
gctacatcc 9

<210> 774
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 774
Ala Thr Ser
 1

<210> 775
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 775
caacagagtt acagtatccc tcccact 27

<210> 776
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 776
Gln Gln Ser Tyr Ser Ile Pro Pro Thr
 1 5

<210> 777
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 777
gaggtgcagc tggtggagtc tgggggagac ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttggt gattatgcca tgcactgggt ccgacaacct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atggtggtag cataggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag acctgaggac acggccttgt attactgtgc aaaagatggg 300
ggtatagcag cagatgccga ctattactac ggtatggacg tctggggcca agggaccacg 360
gtcaccgtct cctca 375

<210> 778
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 778
Glu Val Gln Leu Val Glu Ser Gly Gly Asp Leu Val Gln Pro Gly Arg
 1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Gly Asp Tyr
 20 25 30
Ala Met His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
Ser Gly Ile Ser Trp Asn Gly Gly Ser Ile Gly Tyr Ala Asp Ser Val
 50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr

65 70 75 80
Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95
Ala Lys Asp Gly Gly Ile Ala Ala Asp Ala Asp Tyr Tyr Tyr Gly Met
100 105 110
Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 779
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 779
ggattcacct ttggtgatta tgcc 24

<210> 780
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 780
Gly Phe Thr Phe Gly Asp Tyr Ala
1 5

<210> 781
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 781
attagttgga atggtggtag cata 24

<210> 782
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 782
Ile Ser Trp Asn Gly Gly Ser Ile
 1   5

<210> 783
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 783
gcaaaagatg ggggtatagc agcagatgcc gactattact acggtatgga cgtc   54

<210> 784
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 784
Ala Lys Asp Gly Gly Ile Ala Ala Asp Ala Asp Tyr Tyr Tyr Gly Met
 1   5   10   15
Asp Val

<210> 785
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 785
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcgagtca gggcattacc aatttttag cctggtatca gcagaaacca 120
gggaaagttc ctaagctcct gatctatgct gcatccactt tgcaatcagg ggtcccgtct 180
cggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag ccttcagcct 240
gaagatgttg cgacttatta ctgtcaaacc tataacagtg ccccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 786
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 786
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Thr Asn Phe
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Val Ala Thr Tyr Tyr Cys Gln Thr Tyr Asn Ser Ala Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 787
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 787
cagggcatta ccaatttt   18

<210> 788
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 788
Gln Gly Ile Thr Asn Phe
 1   5

<210> 789
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 789
gctgcatcc 9

<210> 790
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 790
Ala Ala Ser
1

<210> 791
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 791
caaacctata acagtgcccc gctcact 27

<210> 792
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 792
Gln Thr Tyr Asn Ser Ala Pro Leu Thr
1 5

<210> 793
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 793
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc aactatgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtggtct cacatactac 180

gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaacctcggt 300
ataactggaa ctacccccct tgactactgg ggccagggaa ccacggtcac cgtctcctca 360

<210> 794
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 794
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
            20   25   30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Ser Gly Ser Gly Gly Leu 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 Tyr Cys
                85   90   95
Ala Asn Leu Gly Ile Thr Gly Thr Thr Pro Phe Asp Tyr Trp Gly Gln
            100   105   110
Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 795
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 795
ggattcacct ttagcaacta tgcc 24

<210> 796
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 796

Gly Phe Thr Phe Ser Asn Tyr Ala
1 5

<210> 797
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 797
attagtggta gtggtggtct caca 24

<210> 798
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 798
Ile Ser Gly Ser Gly Gly Leu Thr
1 5

<210> 799
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 799
gcgaacctcg gtataactgg aactaccccc tttgactac 39

<210> 800
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 800
Ala Asn Leu Gly Ile Thr Gly Thr Thr Pro Phe Asp Tyr
1 5 10

<210> 801
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 801
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtgaatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta cccctcccac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 802
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 802
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 Ser Ile Ser 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 Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Glu 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 Ser Tyr Ser Thr Pro Pro
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 803
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 803
cagagcatta gcaactat 18

<210> 804
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 804
Gln Ser Ile Ser Asn Tyr
 1   5

<210> 805
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 805
gctgcatcc 9

<210> 806
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 806
Ala Ala Ser
 1

<210> 807
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 807
caacagagtt acagtacccc tcccact 27

<210> 808
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 808
Gln Gln Ser Tyr Ser Thr Pro Pro Thr
 1   5

<210> 809
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 809
gaggtgcagc tggtggagtc tgggggaggc ttggtccagc cgggggggtc cctgagactc 60
tcctgtgcag cctctggatt catctttagt agctattgga tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtggccaat ataaaacaag atggaactga gaaatattat 180
gtggactctg tgaagggccg attcaccatc tccagagaca atgccaagaa atcactatat 240
ctgcaaatga gcagcctgag agccgaggac acggctgtgt attactgtgc gagagatcac 300
ccagtgggag ctcctttctt tgactactgg ggccagggaa ccatggtcac cgtctcctca 360

<210> 810
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 810
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 Ser 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 Ile Lys Gln Asp Gly Thr Glu Lys Tyr Tyr Val Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Ser Leu Tyr
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 His Pro Val Gly Ala Pro Phe Phe Asp Tyr Trp Gly Gln
            100   105   110
Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 811
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 811
ggattcatct ttagtagcta ttgg 24

<210> 812
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 812
Gly Phe Ile Phe Ser Ser Tyr Trp
1 5

<210> 813
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 813
ataaaacaag atggaactga gaaa 24

<210> 814
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 814
Ile Lys Gln Asp Gly Thr Glu Lys
1 5

<210> 815
<211> 39
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 815
gcgagagatc acccagtggg agctcctttc tttgactac 39

<210> 816
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 816
Ala Arg Asp His Pro Val Gly Ala Pro Phe Phe Asp Tyr
 1   5   10

<210> 817
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 817
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagt tactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaacctcct aatctatagt acatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 818
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 818
Asp Ile Leu 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 Ser Ile Ser Tyr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45

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

<210> 819
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 819
cagagcatta gttactat 18

<210> 820
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 820
Gln Ser Ile Ser Tyr Tyr
1 5

<210> 821
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 821
agtacatcc 9

<210> 822
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 822
Ser Thr Ser
 1

<210> 823
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 823
caacagagtt acagtacccc gtacact 27

<210> 824
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 824
Gln Gln Ser Tyr Ser Thr Pro Tyr Thr
 1 5

<210> 825
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
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<400> 825
caggtgcagc tggtggagtc tggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgctg tctatggtgg gtccttcagt ggtttctact ggacctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcagtcata gtggaaacac cgactacatc 180
ccgtccctca agagtcgagt caccatatca ttagacacgt ccaagaacca gttctccctg 240
aagctgaact ctgtgaccgc cgcggacacg gctttttatt actgtgcgag aggtcctttt 300
tacgatattt tgactggtta ccccctttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 826
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 826
Gln Val Gln Leu Val Glu Ser Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Gly Phe
            20   25   30
Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Ser His Ser Gly Asn Thr Asp Tyr Ile Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Leu Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Asn Ser Val Thr Ala Ala Asp Thr Ala Phe Tyr Tyr Cys Ala
                85   90   95
Arg Gly Pro Phe Tyr Asp Ile Leu Thr Gly Tyr Pro Phe Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 827
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 827
ggtgggtcct tcagtggttt ctac   24

<210> 828
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 828
Gly Gly Ser Phe Ser Gly Phe Tyr
 1   5

<210> 829
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 829
atcagtcata gtggaaacac c 21

<210> 830
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 830
Ile Ser His Ser Gly Asn Thr
1 5

<210> 831
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 831
gcgagaggtc ctttttacga tattttgact ggttacccct ttgactac 48

<210> 832
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 832
Ala Arg Gly Pro Phe Tyr Asp Ile Leu Thr Gly Tyr Pro Phe Asp Tyr
1 5 10 15

<210> 833
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 833
gacatcgtga tgacccagtc tccagccatt ctgtctgtgt ctccagggga aagagccacc 60

ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctctt catctatggt gcatccacca gggccactgg tatcccagcc 180
agattcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcagcag tataataact ggcctctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 834
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 834
Asp Ile Val Met Thr Gln Ser Pro Ala Ile Leu Ser Val Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Phe Ile
35 40 45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Leu
85 90 95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 835
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 835
cagagtgtta gcagcaac 18

<210> 836
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 836
Gln Ser Val Ser Ser Asn

1 5

<210> 837
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 837
ggtgcatcc 9

<210> 838
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 838
Gly Ala Ser
1

<210> 839
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 839
cagcagtata ataactggcc tctcact 27

<210> 840
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 840
Gln Gln Tyr Asn Asn Trp Pro Leu Thr
1 5

<210> 841

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

<220>
<223> synthetic

<400> 841
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt aattactatt ggagctggat ccgacagccc 120
ccagggaagg gactggagtg gattgggtat atctattaca gtgggaacac caagtacaac 180
ccctccctca agagtcgagt catcatatca gtagacacgt ccaagaacca gttctccctg 240
aacctgacgt ctgtgaccac tgcggacacg gccgtgtatt actgtgcgag agatatagtg 300
gctgcgatta ggcctcactg gtacttcgat ctctggggcc gtggcaccac ggtcaccgtc 360
tcctca 366

<210> 842
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 842
Glu Val Gln Leu Val 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 Asn Thr Lys Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Ile Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Asn Leu Thr Ser Val Thr Thr Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Ile Val Ala Ala Ile Arg Pro His Trp Tyr Phe Asp Leu Trp
            100   105   110
Gly Arg Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 843
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 843

ggtggctcca tcagtaatta ctat 24

<210> 844
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 844
Gly Gly Ser Ile Ser Asn Tyr Tyr
1 5

<210> 845
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 845
atctattaca gtgggaacac c 21

<210> 846
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 846
Ile Tyr Tyr Ser Gly Asn Thr
1 5

<210> 847
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 847
gcgagagata tagtggctgc gattaggcct cactggtact tcgatctc 48

<210> 848
<211> 16

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 848
Ala Arg Asp Ile Val Ala Ala Ile Arg Pro His Trp Tyr Phe Asp Leu
 1   5   10   15

<210> 849
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 849
gacatcctga tgacccagtc tccatcctcc ctgtctgcgt ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gaccattaac aactatttaa attggtatca gcaatatcca 120
ggaaaagccc ctaaagtcct gatctatgct gcatccattt tgctaagtgg ggtcccatcc 180
agattcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttactt ctgtcaacag agttacagta tccctcccac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 850
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 850
Asp Ile Leu 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 Thr Ile Asn Asn Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Tyr Pro Gly Lys Ala Pro Lys Val Leu Ile
        35   40   45
Tyr Ala Ala Ser Ile Leu Leu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Ser Tyr Ser Ile Pro Pro
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 851
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 851
cagaccatta acaactat 18

<210> 852
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 852
Gln Thr Ile Asn Asn Tyr
1 5

<210> 853
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 853
gctgcatcc 9

<210> 854
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 854
Ala Ala Ser
1

<210> 855
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 855
caacagagtt acagtatccc tcccact 27

<210> 856
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 856
Gln Gln Ser Tyr Ser Ile Pro Pro Thr
 1 5

<210> 857
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 857
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt aattactact ggagctggat ccgacagccc 120
ccagggaagg gactggagtg gattgggtat atctattaca gtgggaacac caagtacaac 180
ccctccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aacctgacgt ctgtgaccac tgcggacacg gccgtgtatt actgtgcgag agatatagtg 300
gctgcgatta ggcctcactg gtacttcgat ctctggggcc gtggcaccac ggtcaccgtc 360
tcctca 366

<210> 858
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 858
Glu Val Gln Leu Val 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 Asn Thr Lys 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
Asn Leu Thr Ser Val Thr Thr Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95
Arg Asp Ile Val Ala Ala Ile Arg Pro His Trp Tyr Phe Asp Leu Trp
100 105 110
Gly Arg Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 859
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 859
ggtggctcca tcagtaatta ctac 24

<210> 860
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 860
Gly Gly Ser Ile Ser Asn Tyr Tyr
1 5

<210> 861
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 861
atctattaca gtgggaacac c 21

<210> 862
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 862
Ile Tyr Tyr Ser Gly Asn Thr
 1   5

<210> 863
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 863
gcgagagata tagtggctgc gattaggcct cactggtact tcgatctc   48

<210> 864
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 864
Ala Arg Asp Ile Val Ala Ala Ile Arg Pro His Trp Tyr Phe Asp Leu
 1   5   10   15

<210> 865
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 865
gacatcctga tgacccagtc tccatcctcc ctgtctgcgt ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gaccattaac acctatttaa attggtatca gcagaatcca 120
gggaaagccc ctaaggtcct gatctatggt acatccattt tgctaagtgg ggtcccatcc 180
agattcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagatttta caagttactt ctgtcaacag agttacagta tccctcccac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 866
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 866
Asp Ile Leu 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 Thr Ile Asn Thr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Asn Pro Gly Lys Ala Pro Lys Val Leu Ile
        35   40   45
Tyr Gly Thr Ser Ile Leu Leu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Thr Ser Tyr Phe Cys Gln Gln Ser Tyr Ser Ile Pro Pro
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 867
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 867
cagaccatta acacctat   18

<210> 868
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 868
Gln Thr Ile Asn Thr Tyr
 1   5

<210> 869
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 869
ggtacatcc 9

<210> 870
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 870
Gly Thr Ser
1

<210> 871
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 871
caacagagtt acagtatccc tcccact 27

<210> 872
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 872
Gln Gln Ser Tyr Ser Ile Pro Pro Thr
1 5

<210> 873
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 873
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc agctatgcca tgagctgggt ccgccaggct 120

ccaggaaagg ggctggagtg ggtctcaggt attagtggta gtggcactca cacatactac 180
acagactccg tgaagggccg gttcaccatc tccagagaca attccaagga caggctctat 240
ctgcaaatga acagtctgag agccgaagac acggccgtat attactgtgc gaaagagggc 300
ctcctctatt atttcaattt ctggggccgt ggcaccacgg tcaccgtctc ctca 354

<210> 874
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 874
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Gly Ser Gly Thr His Thr Tyr Tyr Thr Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asp Arg Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Glu Gly Leu Leu Tyr Tyr Phe Asn Phe Trp Gly Arg Gly Thr
            100   105   110
Thr Val Thr Val Ser Ser
        115

<210> 875
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 875
ggattcacct ttagcagcta tgcc 24

<210> 876
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 876

Gly Phe Thr Phe Ser Ser Tyr Ala
1 5

<210> 877
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 877
attagtggta gtggcactca caca 24

<210> 878
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 878
Ile Ser Gly Ser Gly Thr His Thr
1 5

<210> 879
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 879
gcgaaagagg gcctcctcta ttatttcaat ttc 33

<210> 880
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 880
Ala Lys Glu Gly Leu Leu Tyr Tyr Phe Asn Phe
1 5 10

<210> 881
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 881
gacatcgtga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttactg ctgtcaacag agttacagta ccccattcac tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 882
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 882
Asp Ile Val 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 Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Cys Cys Gln Gln Ser Tyr Ser Thr Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 883
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 883
cagagcatta gcagctat 18

<210> 884
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 884
Gln Ser Ile Ser Ser Tyr
 1   5

<210> 885
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 885
gctgcatcc   9

<210> 886
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 886
Ala Ala Ser
 1

<210> 887
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 887
caacagagtt acagtacccc attcact   27

<210> 888
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 888
Gln Gln Ser Tyr Ser Thr Pro Phe Thr
 1   5

<210> 889
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 889
gaggtgcagc tggtggagtc tgggggggac ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag tctagactat 180
gcggactctg tgaagggccg attcaccatc tccagagaca atgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag aactgaggac acggccttgt attactgtgc aaaagatacg 300
ggtatagcag caggtgccga ctactactac ggtctggacg tctggggcca agggaccacg 360
gtcaccgtct cctca   375

<210> 890
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 890
Glu Val Gln Leu Val Glu Ser Gly Gly Asp Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Leu Asp 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 Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Thr Gly Ile Ala Ala Gly Ala Asp Tyr Tyr Tyr Gly Leu
            100   105   110
Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 891
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 891
ggattcacct ttgatgatta tgcc 24

<210> 892
<211> 8
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<220>
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<400> 892
Gly Phe Thr Phe Asp Asp Tyr Ala
 1 5

<210> 893
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 893
attagttgga atagtggtag tcta 24

<210> 894
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 894
Ile Ser Trp Asn Ser Gly Ser Leu
 1 5

<210> 895
<211> 54
<212> DNA

<213> Artificial Sequence

<220>
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<400> 895
gcaaaagata cgggtatagc agcaggtgcc gactactact acggtctgga cgtc 54

<210> 896
<211> 18
<212> PRT
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<220>
<223> synthetic

<400> 896
Ala Lys Asp Thr Gly Ile Ala Ala Gly Ala Asp Tyr Tyr Tyr Gly Leu
1 5 10 15
Asp Val

<210> 897
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 897
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgttggaga cagagtcacc 60
atcacttgcc gggcgagtca gggcattacc aatttttag cctggtatca gcagatacca 120
gggagagttc ctaagctcct gatctatgct gcatccactt tgcaatcagg ggtcccatct 180
cggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcaa ccttcagcct 240
gaagatgttg caacttatta ctgtcaaacc tataacagtg ccccgctcac tttcggcggg 300
gggaccaagg tggagatcaa acga 324

<210> 898
<211> 108
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<213> Artificial Sequence

<220>
<223> synthetic

<400> 898
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Thr Asn Phe
20 25 30

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

<210> 899
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 899
cagggcatta ccaatttt 18

<210> 900
<211> 6
<212> PRT
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<220>
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<400> 900
Gln Gly Ile Thr Asn Phe
1 5

<210> 901
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 901
gctgcatcc 9

<210> 902
<211> 3
<212> PRT
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<220>
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<400> 902
Ala Ala Ser
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<210> 903
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 903
caaacctata acagtgcccc gctcact 27

<210> 904
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 904
Gln Thr Tyr Asn Ser Ala Pro Leu Thr
 1   5

<210> 905
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<400> 905
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acctgcgctg tctatggtgg gtccttcagt ggttacgact ggagctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcaaactta gtggaagcac caattacaat 180
ccgtccctca agagtcgagt cactatatca ctagacacgt ccaagaacca gttctccctg 240
aagctgagct ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgag agtccctatg 300
actataggct actactacgg tttggacgtc tggggccagg ggaccacggt caccgtctcc 360
tca 363

<210> 906
<211> 121
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 906
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Gly Tyr
            20   25   30
Asp Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Lys Leu Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Leu Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Val Pro Met Thr Ile Gly Tyr Tyr Tyr Gly Leu Asp Val Trp Gly
            100   105   110
Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 907
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 907
ggtgggtcct tcagtggtta cgac   24

<210> 908
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 908
Gly Gly Ser Phe Ser Gly Tyr Asp
 1   5

<210> 909
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 909
atcaaactta gtggaagcac c 21

<210> 910
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 910
Ile Lys Leu Ser Gly Ser Thr
1 5

<210> 911
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 911
gcgagagtcc ctatgactat aggctactac tacggtttgg acgtc 45

<210> 912
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 912
Ala Arg Val Pro Met Thr Ile Gly Tyr Tyr Tyr Gly Leu Asp Val
1 5 10 15

<210> 913
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 913
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atcacttgcc gggcgagtca gggcattagc aattatttag cctggtatca gcagaaacca 120
gggaaagttc ctcagctcct gatctatgct gcatccactt tgcagtcagg ggtcccatct 180
cggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagatgttg ctacttatta ctgtcaaaag tatgccggtg cccctcggac gttcggccag 300
gggaccaagg tggagatcaa acga 324

<210> 914
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 914
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys 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 Ala Gly Ala Pro Arg
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 915
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 915
cagggcatta gcaattat 18

<210> 916
<211> 6
<212> PRT
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<220>
<223> synthetic

<400> 916
Gln Gly Ile Ser Asn Tyr
 1   5

<210> 917
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 917
gctgcatcc   9

<210> 918
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 918
Ala Ala Ser
 1

<210> 919
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 919
caaaagtatg ccggtgcccc tcggacg   27

<210> 920
<211> 9
<212> PRT
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<220>
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<400> 920
Gln Lys Tyr Ala Gly Ala Pro Arg Thr
 1   5

<210> 921
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 921
caggtgcagc tggtggagtc gggcccagga ctggtgaagt cttcggcgac cctgtccctt 60
atctgcactg tctctggtgg ctccataagt agttactact ggagctggat ccggcagccc 120
ccagggaagg gactggagtg gattgggtat atcaattaca gtgggagcac caactacaac 180
ccctccctca agagtcgagt caccatttta gtagacacgt ccaagaacca cttctccctg 240
aagctgagtt ctgtgaccgt tgcggacacg gccgtatatt actgtgcgag aggggccagt 300
aaccctgatt attactacta cggtatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 922
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 922
Gln Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Ser Ser Ala
 1   5   10   15
Thr Leu Ser Leu Ile 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 Asn Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Leu Val Asp Thr Ser Lys Asn His Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Val Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Ala Ser Asn Pro Asp Tyr Tyr Tyr Tyr Gly Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 923
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 923
ggtggctcca taagtagtta ctac 24

<210> 924
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 924
Gly Gly Ser Ile Ser Ser Tyr Tyr
1 5

<210> 925
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 925
atcaattaca gtgggagcac c 21

<210> 926
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 926
Ile Asn Tyr Ser Gly Ser Thr
1 5

<210> 927
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 927
gcgagagggg ccagtaaccc tgattattac tactacggta tggacgtc 48

<210> 928
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 928
Ala Arg Gly Ala Ser Asn Pro Asp Tyr Tyr Tyr Tyr Gly Met Asp Val
 1   5   10   15

<210> 929
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 929
gacatcctga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggcctcc 60
atcaactgca agtccagcca taatgtttta tacagctcca acaataagaa ctacttagct 120
tggtatcagc agacaccagg tcagcctcct aaattactca tttactgggc atctacccgg 180
gaatccgggg tccctgaccg attccgtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga ggatgtggca gtttatttct gtcagcagta ttataatact 300
ccgtggacgt tcggccaagg gaccaaggtg gagatcaaac ga   342

<210> 930
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 930
Asp Ile Leu Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Ser Ile Asn Cys Lys Ser Ser His Asn Val Leu Tyr Ser
            20   25   30
Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Thr 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 Phe Arg 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 Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110

Lys Arg

<210> 931
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 931
cataatgttt tatacagctc caacaataag aactac 36

<210> 932
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 932
His Asn Val Leu Tyr Ser Ser Asn Asn Lys Asn Tyr
 1 5 10

<210> 933
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 933
tgggcatct 9

<210> 934
<211> 3
<212> PRT
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<220>
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<400> 934
Trp Ala Ser
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<210> 935
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 935
cagcagtatt ataatactcc gtggacg 27

<210> 936
<211> 9
<212> PRT
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<220>
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<400> 936
Gln Gln Tyr Tyr Asn Thr Pro Trp Thr
1 5

<210> 937
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
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<400> 937
gaggtgcagc tggtggagtc tgggggaggc ttggtccagc cgggggggtc cctgagactc 60
tcctgtgtag cctctggatt ccccctttagt agctttgga tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtggccaac atgaaacagg atggaagtga gaaatactat 180
gtggactctg tgaagggccg attcaccctc tccagagaca acggcaagaa ctcagtgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagataac 300
ttccccctttg actattgggg ccagggaacc ctggtcaccg tctcctca 348

<210> 938
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
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<400> 938
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Pro Phe Ser Ser Phe

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            20                  25                  30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ala Asn Met Lys Gln Asp Gly Ser Glu Lys Tyr Tyr Val Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Leu Ser Arg Asp Asn Gly Lys Asn Ser Val 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 Phe Pro Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100                 105                 110
Thr Val Ser Ser
        115
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<210> 939
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 939
ggattcccct ttagtagctt ttgg 24

<210> 940
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 940

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Gly Phe Pro Phe Ser Ser Phe Trp
 1               5
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<210> 941
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 941
atgaaacagg atggaagtga gaaa 24

<210> 942
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 942
Met Lys Gln Asp Gly Ser Glu Lys
 1   5

<210> 943
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 943
gcgagagata acttcccctt tgactat   27

<210> 944
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 944
Ala Arg Asp Asn Phe Pro Phe Asp Tyr
 1   5

<210> 945
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 945
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcgagtca gggcattagc agttatttag cctggtatca gcagaaacca 120
gggaaagttc ctaagctcct gatctatgtt gcatccactt tgcaatcagg ggtcccatct 180
cggttcagtg gcagtggatc tggaacagat ttcactctca ccatcagcag cctgcagcct 240
gaagatgttg caacttatta ctgtcacaag tataacagtg ccccgtggac attcggccaa 300
gggaccaagg tggagatcaa acga   324

<210> 946

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

<220>
<223> synthetic

<400> 946
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile
        35   40   45
Tyr Val 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 His Lys Tyr Asn Ser Ala Pro Trp
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 947
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 947
cagggcatta gcagttat   18

<210> 948
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 948
Gln Gly Ile Ser Ser Tyr
 1   5

<210> 949
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 949
gttgcatcc 9

<210> 950
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 950
Val Ala Ser
1

<210> 951
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 951
cacaagtata acagtgcccc gtggaca 27

<210> 952
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 952
His Lys Tyr Asn Ser Ala Pro Trp Thr
1 5

<210> 953
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 953
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acctgtgcca tctccgggga cagcgtctct accaacagtg gtgcttggaa ctgggtcagg 120
cagtccccat cgagaggcct tgagtggctg gggaggacat actacaggtc caagtggtat 180
gatgaatatg cagtatctat gaaaagtcga atgaccatca acccagacac atccaagaac 240
cagttctccc tgcagatgaa ctctgtgact cccgaggaca cggctgtcta tttctgtgca 300
agagaacgca gctggttctc tgacgctttt gatatttggg gccaagggac aatggtcacc 360
gtctcttca 369

<210> 954
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 954
Gln Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Arg Pro Ser Gln
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Ile Ser Gly Asp Ser Val Ser Thr Asn
            20   25   30
Ser Gly Ala Trp Asn Trp Val Arg Gln Ser Pro Ser Arg Gly Leu Glu
        35   40   45
Trp Leu Gly Arg Thr Tyr Tyr Arg Ser Lys Trp Tyr Asp Glu Tyr Ala
    50   55   60
Val Ser Met Lys Ser Arg Met Thr Ile Asn Pro Asp Thr Ser Lys Asn
65   70   75   80
Gln Phe Ser Leu Gln Met Asn Ser Val Thr Pro Glu Asp Thr Ala Val
                85   90   95
Tyr Phe Cys Ala Arg Glu Arg Ser Trp Phe Ser Asp Ala Phe Asp Ile
            100   105   110
Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 955
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 955
ggggacagcg tctctaccaa cagtggtgct 30

<210> 956
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 956
Gly Asp Ser Val Ser Thr Asn Ser Gly Ala
 1   5   10

<210> 957
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 957
acatactaca ggtccaagtg gtatgat   27

<210> 958
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 958
Thr Tyr Tyr Arg Ser Lys Trp Tyr Asp
 1   5

<210> 959
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 959
gcaagagaac gcagctggtt ctctgacgct tttgatatt   39

<210> 960
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
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<400> 960

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Ala Arg Glu Arg Ser Trp Phe Ser Asp Ala Phe Asp Ile
 1               5                  10
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<210> 961
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
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<400> 961
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atcacttgcc gggccagtca gagtattagt acctggttgg cctggtatca gcagaaacca 120
ggaaaagccc ctaaactcct gatctatgag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtagatc tgggacagac ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatactt tttggacgtt cggccaaggg 300
accaaggtgg agatcaaacg a   321

<210> 962
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 962
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Asp Ile Gln Leu Thr Gln Ser Pro Ser Ile Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Thr Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Glu Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Arg Ser Gly Thr Asp 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 Phe Trp Thr
                85                  90                  95
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 963
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 963
cagagtatta gtacctgg 18

<210> 964
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 964
Gln Ser Ile Ser Thr Trp
 1   5

<210> 965
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 965
gaggcgtct 9

<210> 966
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 966
Glu Ala Ser
 1

<210> 967
<211> 24
<212> DNA
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<220>
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<210> 968
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<220>
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<400> 968
Gln Gln Tyr Asn Thr Phe Trp Thr
 1   5

<210> 969
<211> 366
<212> DNA
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ccagggaagg gcctggagtg ggtctcaggc attaattgga atagtggaac catagactat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acgccaagaa atccctgtat 240
ctgcaaatga acagtctgag agctgaggac acggccttct attattgtat aaaggatata 300
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tcctca   366

<210> 970
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 970
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 1   5   10   15
Ser Leu Arg Leu Ser Cys Thr Thr Ser Gly Phe Ile Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Asn Trp Asn Ser Gly Thr Ile Asp Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Phe Tyr Tyr Cys
                85   90   95
Ile Lys Asp Ile Leu Val Pro Asp Ala Trp Gly Tyr Phe Asp Leu Trp

100 105 110
Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 971
<211> 24
<212> DNA
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<220>
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<400> 971
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<210> 972
<211> 8
<212> PRT
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<220>
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<400> 972
Gly Phe Ile Phe Asp Asp Tyr Ala
1 5

<210> 973
<211> 24
<212> DNA
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<220>
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<400> 973
attaattgga atagtggaac cata 24

<210> 974
<211> 8
<212> PRT
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<220>
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<400> 974
Ile Asn Trp Asn Ser Gly Thr Ile
1 5

<210> 975
<211> 45
<212> DNA
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<220>
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<400> 975
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<210> 976
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 976
Ile Lys Asp Ile Leu Val Pro Asp Ala Trp Gly Tyr Phe Asp Leu
1 5 10 15

<210> 977
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<212> DNA
<213> Artificial Sequence

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<400> 977
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cctggccagt ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcaa cattatggtt actcaaaatt cactttcggc 300
cctgggacca aggtggagat caaacga 327

<210> 978
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
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<400> 978
Asp Ile Val Met 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 Thr
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Tyr Gly Tyr Ser Lys
                85   90   95
Phe Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 979
<211> 21
<212> DNA
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<220>
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<400> 979
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<210> 980
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<400> 980
Gln Ser Val Ser Ser Thr Tyr
 1   5

<210> 981
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<400> 981
ggtgcatcc 9

<210> 982
<211> 3
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<213> Artificial Sequence

<220>
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<400> 982
Gly Ala Ser
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<210> 983
<211> 27
<212> DNA
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<400> 983
caacattatg gttactcaaa attcact 27

<210> 984
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<212> PRT
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<400> 984
Gln His Tyr Gly Tyr Ser Lys Phe Thr
 1   5

<210> 985
<211> 369
<212> DNA
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ccagggaagg ggctggagtg ggtaggtttc attagaagca acacttatgg tgggacaaca 180
gaatacgccg tgtctgtgag aggcagattc accatctcaa gagatgattc caaaaatatc 240
gcctatctgc aaatgaatag cctgaaaacc gaggacacag ccgtgtattt ctgtactaga 300
gagggcaggg actacggtga ctacgttctt gactactggg gccagggaac cctggtcacc 360
gtctcctca 369

<210> 986

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

<220>
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<400> 986
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 1   5   10   15
Ser Leu Arg Leu Ser Cys Ser Ala Ala Gly Phe Thr Phe Gly Asp Phe
            20   25   30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Gly Phe Ile Arg Ser Asn Thr Tyr Gly Gly Thr Thr Glu Tyr Ala Val
    50   55   60
Ser Val Arg Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ile
65   70   75   80
Ala Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
                85   90   95
Phe Cys Thr Arg Glu Gly Arg Asp Tyr Gly Asp Tyr Val Leu Asp Tyr
            100   105   110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 987
<211> 24
<212> DNA
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<220>
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<400> 987
ggcttcacct ttggtgattt tgct   24

<210> 988
<211> 8
<212> PRT
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<220>
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<400> 988
Gly Phe Thr Phe Gly Asp Phe Ala
 1   5

<210> 989
<211> 30

<212> DNA
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<400> 989
attagaagca acacttatgg tgggacaaca 30

<210> 990
<211> 10
<212> PRT
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<220>
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<400> 990
Ile Arg Ser Asn Thr Tyr Gly Gly Thr Thr
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<210> 991
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<400> 991
actagagagg gcagggacta cggtgactac gttcttgact ac 42

<210> 992
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<212> PRT
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<400> 992
Thr Arg Glu Gly Arg Asp Tyr Gly Asp Tyr Val Leu Asp Tyr
1 5 10

<210> 993
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<212> DNA
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<400> 993
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gggaaagccc ctaaactcct gatctatctt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatt tggcacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caatttatta ctgtctacaa gatttcactt acccgtggac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 994
<211> 108
<212> PRT
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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Phe Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asn Asp
            20   25   30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Leu Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Phe Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Ile Tyr Tyr Cys Leu Gln Asp Phe Thr Tyr Pro Trp
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 995
<211> 18
<212> DNA
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<220>
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<400> 995
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<210> 996
<211> 6
<212> PRT
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<220>

<223> synthetic

<400> 996
Gln Asp Ile Arg Asn Asp
 1   5

<210> 997
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<212> DNA
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<220>
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<400> 997
cttgcatcc   9

<210> 998
<211> 3
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<220>
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<400> 998
Leu Ala Ser
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<210> 999
<211> 27
<212> DNA
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<220>
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<400> 999
ctacaagatt tcacttaccc gtggacg   27

<210> 1000
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<400> 1000
Leu Gln Asp Phe Thr Tyr Pro Trp Thr

1 5

<210> 1001
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tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag tatggactat 180
gcggactctg tgaagggccg attcaccatt tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agctgaggac acggccttat attactgtat aaaagatata 300
ttagtagcag atgcatgggg gtggttcgat ctctggggcc gtggcaccct ggtcaccgtc 360
tcctca 366

<210> 1002
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1002
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1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
20 25 30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Met Asp Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95
Ile Lys Asp Ile Leu Val Ala Asp Ala Trp Gly Trp Phe Asp Leu Trp
100 105 110
Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1003
<211> 24
<212> DNA
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<220>
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<400> 1003
ggattcacct ttgatgatta tgcc 24

<210> 1004
<211> 8
<212> PRT
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<220>
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<400> 1004
Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 1005
<211> 24
<212> DNA
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<220>
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<400> 1005
attagttgga atagtggtag tatg 24

<210> 1006
<211> 8
<212> PRT
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<220>
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<400> 1006
Ile Ser Trp Asn Ser Gly Ser Met
1 5

<210> 1007
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1007

ataaaagata tattagtagc agatgcatgg gggtggttcg atctc 45

<210> 1008
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1008
Ile Lys Asp Ile Leu Val Ala Asp Ala Trp Gly Trp Phe Asp Leu
 1   5   10   15

<210> 1009
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1009
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ctctcctgta gggccagtca gagtgttagc agcagctacc taacctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta tttctgtcag cactatgtta actcaaaatt cactttcggc 300
cctgggacca aggtggagat caaacga 327

<210> 1010
<211> 109
<212> PRT
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<220>
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<400> 1010
Asp Ile Val Met 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
Tyr Leu Thr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Phe Cys Gln His Tyr Val Asn Ser Lys
                85   90   95

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

<210> 1011
<211> 21
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<220>
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<400> 1011
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<210> 1012
<211> 7
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<220>
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<400> 1012
Gln Ser Val Ser Ser Ser Tyr
1 5

<210> 1013
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<400> 1013
ggtgcatcc 9

<210> 1014
<211> 3
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<400> 1014
Gly Ala Ser
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<210> 1015
<211> 27
<212> DNA
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<220>
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<400> 1015
cagcactatg ttaactcaaa attcact 27

<210> 1016
<211> 9
<212> PRT
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<220>
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<400> 1016
Gln His Tyr Val Asn Ser Lys Phe Thr
1 5

<210> 1017
<211> 366
<212> DNA
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<400> 1017
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acctgcactg tctctaatgg ctccatcagt acttactatt ggagctggat acggcagccc 120
ccagggaagg gactggagtg gattgggtat gtctattaca gtgggaggac caactacaat 180
ccctccctca agagtcgagt catcatatca gtagacacgc ccaagaacca gttctccctg 240
aaactgagtt ctgtgaccgc tgcagacacg gccgtgtatt actgtgcgcg agatcttcat 300
atagcagtgg gtggctactg gtacttcgat ttctggggcc gtggcaccct ggtcaccgtc 360
tcctca 366

<210> 1018
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1018
Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

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Thr Leu Ser Leu Thr Cys Thr Val Ser Asn Gly Ser Ile Ser Thr 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 Val Tyr Tyr Ser Gly Arg Thr Asn Tyr Asn Pro Ser Leu Lys
    50                  55                  60
Ser Arg Val Ile Ile Ser Val Asp Thr Pro Lys Asn Gln Phe Ser Leu
65                  70                  75                  80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Asp Leu His Ile Ala Val Gly Gly Tyr Trp Tyr Phe Asp Phe Trp
            100                 105                 110
Gly Arg Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 1019
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1019
aatggctcca tcagtactta ctat 24

<210> 1020
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1020
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Asn Gly Ser Ile Ser Thr Tyr Tyr
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<210> 1021
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1021
gtctattaca gtgggaggac c 21

<210> 1022

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

<220>
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<400> 1022
Val Tyr Tyr Ser Gly Arg Thr
 1   5

<210> 1023
<211> 48
<212> DNA
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<220>
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<400> 1023
gcgcgagatc ttcatatagc agtgggtggc tactggtact tcgatttc 48

<210> 1024
<211> 16
<212> PRT
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<220>
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<400> 1024
Ala Arg Asp Leu His Ile Ala Val Gly Gly Tyr Trp Tyr Phe Asp Phe
 1   5   10   15

<210> 1025
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1025
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atcacttgcc gggcaagtca gagcattaac aactatttga attggtatca gcagaaacca 120
gggaaggccc ctaagctcct gatctatgct gcatccactt tacaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacaact ttcactctca ccatcaacag tctgcaacct 240
gaagattttg caacttactt ctgtcaacaa atttacagta tcccgatcac cttcggccag 300
gggaccaaac tggagatcaa acga 324

<210> 1026
<211> 108
<212> PRT
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<400> 1026
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 Ser Ile Asn 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 Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Thr Phe Thr Leu Thr Ile Asn Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Ile Tyr Ser Ile Pro Ile
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
            100   105

<210> 1027
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1027
cagagcatta acaactat   18

<210> 1028
<211> 6
<212> PRT
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<220>
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<400> 1028
Gln Ser Ile Asn Asn Tyr
 1   5

<210> 1029
<211> 9
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 1029
gctgcatcc 9

<210> 1030
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1030
Ala Ala Ser
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<210> 1031
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1031
caacaaattt acagtatccc gatcacc 27

<210> 1032
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1032
Gln Gln Ile Tyr Ser Ile Pro Ile Thr
 1   5

<210> 1033
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1033
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acctgtgcca tctccgggga cagtgtctct accaacagtg gtgcttggaa ctggatcagg 120
cagtccccat cgagaggcct tgagtggctg ggaaggacat actacaggtc caagtggtat 180
aatgactatg cagcatctgt gaaaagtcga ataaccatca gcccagacac atccaagaac 240
cagttctccc tgcagatgaa ctctgtgact cccgaggaca cggctgtgta tttctgtgca 300
agagaacgca gctggttctc tgacgctttt gatatctggg gccaagggac aatggtcacc 360
gtctcctca 369

<210> 1034
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1034
Gln Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Ile Ser Gly Asp Ser Val Ser Thr Asn
            20   25   30
Ser Gly 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
Ala Ser Val Lys Ser Arg Ile Thr Ile Ser Pro Asp Thr Ser Lys Asn
65   70   75   80
Gln Phe Ser Leu Gln Met Asn Ser Val Thr Pro Glu Asp Thr Ala Val
                85   90   95
Tyr Phe Cys Ala Arg Glu Arg Ser Trp Phe Ser Asp Ala Phe Asp Ile
            100   105   110
Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 1035
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1035
ggggacagtg tctctaccaa cagtggtgct 30

<210> 1036
<211> 10
<212> PRT
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<220>
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<400> 1036
Gly Asp Ser Val Ser Thr Asn Ser Gly Ala
 1   5   10

<210> 1037
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1037
acatactaca ggtccaagtg gtataat   27

<210> 1038
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1038
Thr Tyr Tyr Arg Ser Lys Trp Tyr Asn
 1   5

<210> 1039
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1039
gcaagagaac gcagctggtt ctctgacgct tttgatatc   39

<210> 1040
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1040
Ala Arg Glu Arg Ser Trp Phe Ser Asp Ala Phe Asp Ile
 1   5   10

<210> 1041
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1041
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atcacttgcc gggccagtca gagtattagt gcctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatactt attggacgtt cggccaaggg 300
accaaggtgg agatcaaacg a   321

<210> 1042
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1042
Asp Ile Leu Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asn Arg Ile Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ala Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Thr Tyr Trp Thr
                85   90   95
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1043
<211> 18
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1043
cagagtatta gtgcctgg 18

<210> 1044
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1044
Gln Ser Ile Ser Ala Trp
 1   5

<210> 1045
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1045
aaggcgtct 9

<210> 1046
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1046
Lys Ala Ser
 1

<210> 1047
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1047
caacagtata atacttattg gacg 24

<210> 1048
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1048
Gln Gln Tyr Asn Thr Tyr Trp Thr
 1   5

<210> 1049
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1049
caggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagcg 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtgatta tatagactat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ttccctgtat 240
ctgcagatga acagtctgag atctgaggac acggccctgt attactgtgc aaaagatata 300
ttactaccag atgcatgggg gtggttcgat ctctggggcc gtggcaccct ggtcaccgtc 360
tcctca   366

<210> 1050
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1050
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Asp Tyr Ile Asp 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 Ser Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95

Ala Lys Asp Ile Leu Leu Pro Asp Ala Trp Gly Trp Phe Asp Leu Trp
100 105 110
Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1051
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1051
ggattcacct ttgatgatta tgcc 24

<210> 1052
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1052
Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 1053
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1053
attagttgga atagtgatta tata 24

<210> 1054
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1054
Ile Ser Trp Asn Ser Asp Tyr Ile
1 5

<210> 1055
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1055
gcaaaagata tattactacc agatgcatgg gggtggttcg atctc 45

<210> 1056
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1056
Ala Lys Asp Ile Leu Leu Pro Asp Ala Trp Gly Trp Phe Asp Leu
1 5 10 15

<210> 1057
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1057
gacatcgtga tgacccagtc tccagacacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gcgtgttagc agtagctact taacctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
tctgaagatt ctgcagtgta ttactgccag cattttgtta actcaaaatt cactttcggc 300
cctgggacca aggtggagat caaacga 327

<210> 1058
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1058
Asp Ile Val Met Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly

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 1               5                  10                  15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Arg Val Ser Ser Ser
            20                  25                  30
Tyr Leu Thr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35                  40                  45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50                  55                  60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65                  70                  75                  80
Ser Glu Asp Ser Ala Val Tyr Tyr Cys Gln His Phe Val Asn Ser Lys
                85                  90                  95
Phe Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 1059
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1059
cagcgtgtta gcagtagcta c 21

<210> 1060
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1060
Gln Arg Val Ser Ser Ser Tyr
 1   5

<210> 1061
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1061
ggtgcatcc 9

<210> 1062
<211> 3

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1062
Gly Ala Ser
 1

<210> 1063
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1063
cagcattttg ttaactcaaa attcact 27

<210> 1064
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1064
Gln His Phe Val Asn Ser Lys Phe Thr
 1   5

<210> 1065
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1065
caggtgcagc tggtggagtc tgggggaggc ttggttcagc cagggcggtc cctgagactc 60
tcctgttcag ctgctggatt cacctttggt gattttgcta tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtaggtttc attagaagca acacttatgg tgggacaaca 180
gaatacgccg tgtctgtgag aggcagattc accatctcaa gagatgattc caaaaatatc 240
gcctatctgc aaatgaatag cctgaaaacc gaggacacag ccgtgtatta ctgtactaga 300
gagggcaggg actacggtga ctacgttctt gactactggg gccagggaac catggtcacc 360
gtctcctca 369

<210> 1066
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1066
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ser Ala Ala Gly Phe Thr Phe Gly Asp Phe
            20   25   30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Gly Phe Ile Arg Ser Asn Thr Tyr Gly Gly Thr Thr Glu Tyr Ala Val
    50   55   60
Ser Val Arg Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ile
65   70   75   80
Ala Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Thr Arg Glu Gly Arg Asp Tyr Gly Asp Tyr Val Leu Asp Tyr
            100   105   110
Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 1067
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1067
ggattcacct ttggtgattt tgct   24

<210> 1068
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1068
Gly Phe Thr Phe Gly Asp Phe Ala
 1   5

<210> 1069

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

<220>
<223> synthetic

<400> 1069
attagaagca acacttatgg tgggacaaca 30

<210> 1070
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1070
Ile Arg Ser Asn Thr Tyr Gly Gly Thr Thr
1 5 10

<210> 1071
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1071
actagagagg gcagggacta cggtgactac gttcttgact ac 42

<210> 1072
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1072
Thr Arg Glu Gly Arg Asp Tyr Gly Asp Tyr Val Leu Asp Tyr
1 5 10

<210> 1073
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1073
gacatcctga tgacccagtc tccatcctcc ctgtgtgtat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca ggacattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatctt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatt tggcacagat ttcagtctca ccatcagcag cctgcagcct 240
gaagattttg caatttacta ctgtctacaa gatttcactt acccgtggac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 1074
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1074
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Cys Val Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asn Asp
            20   25   30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Leu Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Phe Gly Thr Asp Phe Ser Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Ile Tyr Tyr Cys Leu Gln Asp Phe Thr Tyr Pro Trp
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1075
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1075
caggacatta gaaatgat 18

<210> 1076
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1076
Gln Asp Ile Arg Asn Asp
 1   5

<210> 1077
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1077
cttgcatcc   9

<210> 1078
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1078
Leu Ala Ser
 1

<210> 1079
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1079
ctacaagatt tcacttaccc gtggacg   27

<210> 1080
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1080

Leu Gln Asp Phe Thr Tyr Pro Trp Thr
 1   5

<210> 1081
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1081
caggtgcagc tggtggagtc tgggggaggc gtggtacagc cgggggggtc cctgagactc 60
tcctgtacaa cctctggatt catctttgat gattatgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggc attaattgga atagtggaac catagactat 180
gcagactcgg tgaagggccg attcaccatc tccagagaca acgccaagaa atccctgtat 240
cttcaaatga acagtctgag agctgaggac acggccttct attattgtat aaaggatata 300
ttagtaccag atgcatgggg gtatttcgat atttggggcc gtggcaccct ggtcaccgtc 360
tcctca   366

<210> 1082
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1082
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Thr Thr Ser Gly Phe Ile Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Asn Trp Asn Ser Gly Thr Ile Asp Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Phe Tyr Tyr Cys
                85   90   95
Ile Lys Asp Ile Leu Val Pro Asp Ala Trp Gly Tyr Phe Asp Ile Trp
            100   105   110
Gly Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 1083
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1083
ggattcatct ttgatgatta tgcc 24

<210> 1084
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1084
Gly Phe Ile Phe Asp Asp Tyr Ala
 1 5

<210> 1085
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1085
attaattgga atagtggaac cata 24

<210> 1086
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1086
Ile Asn Trp Asn Ser Gly Thr Ile
 1 5

<210> 1087
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1087
ataaaggata tattagtacc agatgcatgg gggtatttcg atatt 45

<210> 1088
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1088
Ile Lys Asp Ile Leu Val Pro Asp Ala Trp Gly Tyr Phe Asp Ile
1 5 10 15

<210> 1089
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1089
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgta gggccagtca gagtgttagc agcacctact tagcctggta ccagcagaaa 120
cctggccagt ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcaa cattatggtt actcaaaatt cactttcggc 300
cctgggacca aggtggagat caaacga 327

<210> 1090
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1090
Asp Ile Val Met 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 Thr
20 25 30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Arg Leu Leu
35 40 45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Tyr Gly Tyr Ser Lys

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

<210> 1091
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1091
cagagtgtta gcagcaccta c 21

<210> 1092
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1092
Gln Ser Val Ser Ser Thr Tyr
1 5

<210> 1093
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1093
ggtgcatcc 9

<210> 1094
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1094
Gly Ala Ser
1

<210> 1095
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1095
caacattatg gttactcaaa attcact 27

<210> 1096
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1096
Gln His Tyr Gly Tyr Ser Lys Phe Thr
1 5

<210> 1097
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1097
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgtag cctctggatt cacctttgat gattatggca tgcactgggt ccggcaagcg 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtgataa tatggactat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatgc aaaatctgag atcagaggac acggccctgt attactgtgc aaaagatata 300
ttagttccag atgcatgggg gtggttcgat ctctggggcc gtggcaccct ggtcaccgtc 360
tcctca 366

<210> 1098
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1098
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg

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 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20                  25                  30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Gly Ile Ser Trp Asn Ser Asp Asn Met Asp 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 Gln Asn Leu Arg Ser Glu Asp Thr Ala Leu Tyr Tyr Cys
                85                  90                  95
Ala Lys Asp Ile Leu Val Pro Asp Ala Trp Gly Trp Phe Asp Leu Trp
            100                 105                 110
Gly Arg Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 1099
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1099
ggattcacct ttgatgatta tggc 24

<210> 1100
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1100

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Gly Phe Thr Phe Asp Asp Tyr Gly
 1               5
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<210> 1101
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1101
attagttgga atagtgataa tatg 24

<210> 1102
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1102
Ile Ser Trp Asn Ser Asp Asn Met
 1   5

<210> 1103
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1103
gcaaaagata tattagttcc agatgcatgg gggtggttcg atctc   45

<210> 1104
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1104
Ala Lys Asp Ile Leu Val Pro Asp Ala Trp Gly Trp Phe Asp Leu
 1   5   10   15

<210> 1105
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1105
gacatcgtga tgacccagtc tccagacacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gcgtgttagc agcagccact taacctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatcttt ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtata ttactgtcag cattttgtta actcaaaatt cactttcggc 300
cctgggacca aggtggagat caaacga   327

<210> 1106
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1106
Asp Ile Val Met Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Arg Val Ser Ser Ser
            20   25   30
His Leu Thr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Phe Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Phe Val Asn Ser Lys
                85   90   95
Phe Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1107
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1107
cagcgtgtta gcagcagcca c   21

<210> 1108
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1108
Gln Arg Val Ser Ser Ser His
 1   5

<210> 1109
<211> 9

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1109
ggtgcatcc 9

<210> 1110
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1110
Gly Ala Ser
1

<210> 1111
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1111
cagcattttg ttaactcaaa attcact 27

<210> 1112
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1112
Gln His Phe Val Asn Ser Lys Phe Thr
1 5

<210> 1113
<211> 366
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1113
caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagc acttactatt ggagctggat acggcagccc 120
ccagggaagg gactggagtg gattgggtat atctattaca gtgggaggac caactacaat 180
ccctccctca agagtcgagt catcatatca gtagacacgt ccaagaacca gttctccctg 240
aagctgagtt ctgtgaccgc tgcagacacg gccgtgtatt actgtgcgcg agatcttcat 300
atagcagtgg gtggctactg gttcttcgat ttctggggcc gtggcaccct ggtcaccgtc 360
tcctca 366

<210> 1114
<211> 122
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<213> Artificial Sequence

<220>
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 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Thr 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 Ile Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Leu His Ile Ala Val Gly Gly Tyr Trp Phe Phe Asp Phe Trp
            100   105   110
Gly Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 1115
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1115
ggtggctcca tcagcactta ctat 24

<210> 1116
<211> 8
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 1116
Gly Gly Ser Ile Ser Thr Tyr Tyr
 1   5

<210> 1117
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1117
atctattaca gtgggaggac c   21

<210> 1118
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1118
Ile Tyr Tyr Ser Gly Arg Thr
 1   5

<210> 1119
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1119
gcgcgagatc ttcatatagc agtgggtggc tactggttct tcgatttc   48

<210> 1120
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1120
Ala Arg Asp Leu His Ile Ala Val Gly Gly Tyr Trp Phe Phe Asp Phe
 1   5   10   15

<210> 1121
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1121
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc ggacaagtca gagcattaac aactatttga attggtatca gcagaaacca 120
gggaaggccc ctaacctcct gatctatgct gcatccactt tacaaactgg ggtcccatca 180
cggttcagtg gcagtggatc tgggacaact ttcactctca ccatcaacag tctgcaacct 240
gaagattttg caacttactt ctgtcagcaa atttacagtc tcccgatcac cttcggccag 300
gggacacgac tggagattaa acga   324

<210> 1122
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1122
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 Thr Ser Gln Ser Ile Asn Asn Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Thr Leu Gln Thr Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Thr Phe Thr Leu Thr Ile Asn Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Ile Tyr Ser Leu Pro Ile
                85   90   95
Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
            100   105

<210> 1123
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1123
cagagcatta acaactat 18

<210> 1124
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1124
Gln Ser Ile Asn Asn Tyr
1 5

<210> 1125
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1125
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<210> 1126
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1126
Ala Ala Ser
1

<210> 1127
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1127

cagcaaattt acagtctccc gatcacc 27

<210> 1128
<211> 9
<212> PRT
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<220>
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<400> 1128
Gln Gln Ile Tyr Ser Leu Pro Ile Thr
 1 5

<210> 1129
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1129
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tcctgttcag ctgctggatt cacctttggt gattttgcta tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtaggtttc attagaagca acacttatgg tgggacaaca 180
gaatacgccg tgtctgtgag aggcagattc accatctcaa gagatgattc caaaaatatc 240
gcctatctgc aaatgaatag cctgaaaacc gaggacacag ccgtgtatta ctgtactaga 300
gagggcaggg actacggtga ctacgttctt gactactggg gccagggaac cctggtcacc 360
gtctcctca 369

<210> 1130
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1130
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1 5 10 15
Ser Leu Arg Leu Ser Cys Ser Ala Ala Gly Phe Thr Phe Gly Asp Phe
 20 25 30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
Gly Phe Ile Arg Ser Asn Thr Tyr Gly Gly Thr Thr Glu Tyr Ala Val
 50 55 60
Ser Val Arg Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ile
65 70 75 80
Ala Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr

85 90 95
Tyr Cys Thr Arg Glu Gly Arg Asp Tyr Gly Asp Tyr Val Leu Asp Tyr
100 105 110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1131
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1131
ggattcacct ttggtgattt tgct 24

<210> 1132
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1132
Gly Phe Thr Phe Gly Asp Phe Ala
1 5

<210> 1133
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1133
attagaagca acacttatgg tgggacaaca 30

<210> 1134
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1134
Ile Arg Ser Asn Thr Tyr Gly Gly Thr Thr

 1   5   10

<210> 1135
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1135
actagagagg gcagggacta cggtgactac gttcttgact ac   42

<210> 1136
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1136
Thr Arg Glu Gly Arg Asp Tyr Gly Asp Tyr Val Leu Asp Tyr
 1   5   10

<210> 1137
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1137
gacatcctga tgacccagtc tccatcctcc ctgtttgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca ggacattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatctt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatt tggcacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caatttatta ctgtctacaa gatttcactt acccgtggac gttcggccaa 300
gggaccaagg tggagatcaa acga   324

<210> 1138
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1138

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Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Phe Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asn Asp
            20                  25                  30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Leu Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Phe Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Ile Tyr Tyr Cys Leu Gln Asp Phe Thr Tyr Pro Trp
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 1139
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1139
caggacatta gaaatgat 18

<210> 1140
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1140
Gln Asp Ile Arg Asn Asp
 1   5

<210> 1141
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1141
cttgcatcc 9

<210> 1142

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

<220>
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<400> 1142
Leu Ala Ser
 1

<210> 1143
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1143
ctacaagatt tcacttaccc gtggacg 27

<210> 1144
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<212> PRT
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<220>
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<400> 1144
Leu Gln Asp Phe Thr Tyr Pro Trp Thr
 1 5

<210> 1145
<211> 369
<212> DNA
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<220>
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<400> 1145
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acctgtgcca tctccgggga cagtgtctct accaacagtg gtgcttggaa ctggatcagg 120
cagtccccat cgagaggcct tgagtggctg ggaaggacat attataggtc caagtggtat 180
gaagaatatg cagtatctgt gagaggtcga ataaccatca gcccagacac atccaagaac 240
cagttctccc tgcagatgaa ctctgtgact cccgaggaca cggctgtgta tttctgtgca 300
agagaacgca gctggttctc tgacgctttt gatctttggg gccaagggac aatggtcacc 360
gtctcttca 369

<210> 1146
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1146
Gln Val Gln Leu Val Gln Ser Gly Pro Glu Leu Val Arg Pro Ser Gln
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Ile Ser Gly Asp Ser Val Ser Thr Asn
            20   25   30
Ser Gly 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 Glu Glu Tyr Ala
    50   55   60
Val Ser Val Arg Gly Arg Ile Thr Ile Ser Pro Asp Thr Ser Lys Asn
65   70   75   80
Gln Phe Ser Leu Gln Met Asn Ser Val Thr Pro Glu Asp Thr Ala Val
                85   90   95
Tyr Phe Cys Ala Arg Glu Arg Ser Trp Phe Ser Asp Ala Phe Asp Leu
            100   105   110
Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 1147
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1147
ggggacagtg tctctaccaa cagtggtgct   30

<210> 1148
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1148
Gly Asp Ser Val Ser Thr Asn Ser Gly Ala
 1   5   10

<210> 1149
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1149
acatattata ggtccaagtg gtatgaa 27

<210> 1150
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1150
Thr Tyr Tyr Arg Ser Lys Trp Tyr Glu
1 5

<210> 1151
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1151
gcaagagaac gcagctggtt ctctgacgct tttgatctt 39

<210> 1152
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1152
Ala Arg Glu Arg Ser Trp Phe Ser Asp Ala Phe Asp Leu
1 5 10

<210> 1153
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1153
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atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
ggaaaagccc ctaaactcct gatctatgag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtagatc tgggacagac ttcactctca ctatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatactt attggacgtt cggccaaggg 300
accaaggtgg agatcaaacg a 321

<210> 1154
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1154
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 Glu Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Arg Ser Gly Thr Asp 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 Trp Thr
                85   90   95
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1155
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1155
cagagtatta gtagctgg 18

<210> 1156
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1156
Gln Ser Ile Ser Ser Trp
 1   5

<210> 1157
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1157
gaggcgtct   9

<210> 1158
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1158
Glu Ala Ser
 1

<210> 1159
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1159
caacagtata atacttattg gacg   24

<210> 1160
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1160
Gln Gln Tyr Asn Thr Tyr Trp Thr
 1   5

<210> 1161
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1161
gaggtgcagc tggtggagtc cgggggaggc ttgggacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagtt 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtgatac cctaggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctttat 240
ctgcaaatga acagtctgag acctgaggac acggccatat attactgtgc aaaggataca 300
ttagtaccag atgattgggg gtatttcgct ctctggggcc gtggcaccct ggtcaccgtc 360
tcctca   366

<210> 1162
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1162
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Gly Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Asp Thr Leu Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Ile Tyr Tyr Cys
                85   90   95
Ala Lys Asp Thr Leu Val Pro Asp Asp Trp Gly Tyr Phe Ala Leu Trp
            100   105   110
Gly Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 1163
<211> 24
<212> DNA

<213> Artificial Sequence

<220>
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<400> 1163
ggattcacct ttgatgatta tgcc 24

<210> 1164
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1164
Gly Phe Thr Phe Asp Asp Tyr Ala
 1 5

<210> 1165
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1165
attagttgga atagtgatac ccta 24

<210> 1166
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1166
Ile Ser Trp Asn Ser Asp Thr Leu
 1 5

<210> 1167
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1167
gcaaaggata cattagtacc agatgattgg gggtatttcg ctctc 45

<210> 1168
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1168
Ala Lys Asp Thr Leu Val Pro Asp Asp Trp Gly Tyr Phe Ala Leu
 1   5   10   15

<210> 1169
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1169
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagt agcaactact taacctggta ccagcagaga 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca ccagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgtt ttactgtcag cactatggtt actcaaaatt cactttcggc 300
cctgggacca aggtggagat caaacga 327

<210> 1170
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1170
Asp Ile Val Met 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 Asn
            20   25   30
Tyr Leu Thr Trp Tyr Gln Gln Arg Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80

Pro Glu Asp Phe Ala Val Phe Tyr Cys Gln His Tyr Gly Tyr Ser Lys
85 90 95
Phe Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 1171
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1171
cagagtgtta gtagcaacta c 21

<210> 1172
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1172
Gln Ser Val Ser Ser Asn Tyr
1 5

<210> 1173
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1173
ggtgcatcc 9

<210> 1174
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1174
Gly Ala Ser
1

<210> 1175
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1175
cagcactatg gttactcaaa attcact 27

<210> 1176
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1176
Gln His Tyr Gly Tyr Ser Lys Phe Thr
1 5

<210> 1177
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1177
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tcctgtacag cctctggatt cacctttagc acctctgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtagta gtggtggtag cacatactac 180
gcagactccg tgaggggccg tttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgttt attactgtgc ggagggcagt 300
ggctggtact actttgacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 1178
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1178
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly

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 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe Thr Phe Ser Thr Ser
            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 Ser Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60
Arg 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 Glu Gly Ser Gly Trp Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
            100                 105                 110
Leu Val Thr Val Ser Ser
        115
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<210> 1179
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1179
ggattcacct ttagcacctc tgcc 24

<210> 1180
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1180

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Gly Phe Thr Phe Ser Thr Ser Ala
 1               5
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<210> 1181
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1181
attagtagta gtggtggtag caca 24

<210> 1182
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1182
Ile Ser Ser Ser Gly Gly Ser Thr
 1   5

<210> 1183
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1183
gcggagggca gtggctggta ctactttgac tac   33

<210> 1184
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1184
Ala Glu Gly Ser Gly Trp Tyr Tyr Phe Asp Tyr
 1   5   10

<210> 1185
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1185
gaaatcgtga tgacccagtc tccaggcacc atgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcaactact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggaa 240
cctgaagatt ttgcagtgta tttctgtcag caatatggta gctcaccgct cactttcggc 300
ggagggacca aggtggagat caaacga   327

<210> 1186
<211> 109
<212> PRT
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<220>
<223> synthetic

<400> 1186
Glu Ile Val Met Thr Gln Ser Pro Gly Thr Met Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Phe Cys Gln Gln Tyr Gly Ser Ser Pro
                85   90   95
Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1187
<211> 21
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<220>
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<400> 1187
cagagtgtta gcagcaacta c   21

<210> 1188
<211> 7
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<220>
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<400> 1188
Gln Ser Val Ser Ser Asn Tyr
 1   5

<210> 1189
<211> 9

<212> DNA
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<220>
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<400> 1189
ggtgcatcc 9

<210> 1190
<211> 3
<212> PRT
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<220>
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<400> 1190
Gly Ala Ser
1

<210> 1191
<211> 27
<212> DNA
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<220>
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<400> 1191
cagcaatatg gtagctcacc gctcact 27

<210> 1192
<211> 9
<212> PRT
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<220>
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<400> 1192
Gln Gln Tyr Gly Ser Ser Pro Leu Thr
1 5

<210> 1193
<211> 366
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1193
gaggtgcagc tggtggagtc tgggggaggc gtggtacagc cgggggggtc cctgagactc 60
tcctgtaaaa cctctggatt catctttgat gattatgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggc attaattgga atagtggaac catagactat 180
tcagactctg tgaagggccg attcaccatc tccagagaca acgccaagaa atccctgtat 240
ctccaaatga acagtctgag atctgaggac acggccttgt attattgtat aaaagatata 300
ttagtgccag atgcatgggg gcatttcgat atttggggcc gtggcaccct ggtcaccgtc 360
tcctca 366

<210> 1194
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1194
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Lys Thr Ser Gly Phe Ile Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Asn Trp Asn Ser Gly Thr Ile Asp Tyr Ser Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ser Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ile Lys Asp Ile Leu Val Pro Asp Ala Trp Gly His Phe Asp Ile Trp
            100   105   110
Gly Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 1195
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1195
ggattcatct ttgatgatta tgcc 24

<210> 1196
<211> 8
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 1196
Gly Phe Ile Phe Asp Asp Tyr Ala
 1   5

<210> 1197
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1197
attaattgga atagtggaac cata   24

<210> 1198
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1198
Ile Asn Trp Asn Ser Gly Thr Ile
 1   5

<210> 1199
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1199
ataaaagata tattagtgcc agatgcatgg gggcatttcg atatt   45

<210> 1200
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1200
Ile Lys Asp Ile Leu Val Pro Asp Ala Trp Gly His Phe Asp Ile
 1   5   10   15

<210> 1201
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1201
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgta gggccagtca gagtgttagc agcacctact tagcctggta ccagcagaaa 120
cctggccagt ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcaa cattatggtt actcaaaatt cactttcggc 300
cctgggacca aggtggagat caaacga   327

<210> 1202
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1202
Asp Ile Val Met 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 Thr
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Tyr Gly Tyr Ser Lys
                85   90   95
Phe Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1203
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1203
cagagtgtta gcagcaccta c 21

<210> 1204
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1204
Gln Ser Val Ser Ser Thr Tyr
1 5

<210> 1205
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1205
ggtgcatcc 9

<210> 1206
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1206
Gly Ala Ser
1

<210> 1207
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1207

caacattatg gttactcaaa attcact 27

<210> 1208
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1208
Gln His Tyr Gly Tyr Ser Lys Phe Thr
 1 5

<210> 1209
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1209
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagcg 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtgataa tgtagactat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag atctgaggac acggccctgt attactgtac aaaagatata 300
ctagtaccgg attcatgggg gtggttcgat ctctggggcc gtggcaccct ggtcaccgtc 360
tcctca 366

<210> 1210
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1210
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
 20 25 30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
Ser Gly Ile Ser Trp Asn Ser Asp Asn Val Asp 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 Ser Glu Asp Thr Ala Leu Tyr Tyr Cys

85 90 95
Thr Lys Asp Ile Leu Val Pro Asp Ser Trp Gly Trp Phe Asp Leu Trp
100 105 110
Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1211
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1211
ggattcacct ttgatgatta tgcc 24

<210> 1212
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1212
Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 1213
<211> 24
<212> DNA
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<220>
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<400> 1213
attagttgga atagtgataa tgta 24

<210> 1214
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1214
Ile Ser Trp Asn Ser Asp Asn Val

1 5

<210> 1215
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1215
acaaaagata tactagtacc ggattcatgg gggtggttcg atctc 45

<210> 1216
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1216
Thr Lys Asp Ile Leu Val Pro Asp Ser Trp Gly Trp Phe Asp Leu
1 5 10 15

<210> 1217
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1217
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtct gagcattagc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggctc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagtg tccctccgat caccttcggc 300
caggggacca aactggagat caaacga 327

<210> 1218
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1218

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Asp Ile Leu 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 Leu Ser Ile Ser 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 Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Val Pro Pro
                85                  90                  95
Ile Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
            100                 105
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<210> 1219
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1219
ctgagcatta gcaactat 18

<210> 1220
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1220
Leu Ser Ile Ser Asn Tyr
 1   5

<210> 1221
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1221
gctgcatcc 9

<210> 1222

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

<220>
<223> synthetic

<400> 1222
Ala Ala Ser
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<210> 1223
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1223
caacagagtt acagtgtccc tccgatcacc 30

<210> 1224
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1224
Gln Gln Ser Tyr Ser Val Pro Pro Ile Thr
 1   5   10

<210> 1225
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1225
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt taggcaagcg 120
ccagggaagg gcctagagtg ggtctcaggt attagttgga atagtgatga tgtagactat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag atctgaggac acggccctgt attactgtgc aaaagatata 300
ttattaccag atgcatgggg gtggttcgat ctctggggcc gtggcacccc ggtcaccgtc 360
tcctca 366

<210> 1226
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1226
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Asp Asp Val Asp 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 Ser Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Ile Leu Leu Pro Asp Ala Trp Gly Trp Phe Asp Leu Trp
            100   105   110
Gly Arg Gly Thr Pro Val Thr Val Ser Ser
        115   120

<210> 1227
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1227
ggattcacct ttgatgatta tgcc   24

<210> 1228
<211> 8
<212> PRT
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<220>
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<400> 1228
Gly Phe Thr Phe Asp Asp Tyr Ala
 1   5

<210> 1229
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1229
attagttgga atagtgatga tgta 24

<210> 1230
<211> 8
<212> PRT
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<220>
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<400> 1230
Ile Ser Trp Asn Ser Asp Asp Val
1 5

<210> 1231
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1231
gcaaaagata tattattacc agatgcatgg gggtggttcg atctc 45

<210> 1232
<211> 15
<212> PRT
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<220>
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<400> 1232
Ala Lys Asp Ile Leu Leu Pro Asp Ala Trp Gly Trp Phe Asp Leu
1 5 10 15

<210> 1233
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1233
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ctctcctgca gggccagtca gcgtgttagc atcagctact taacctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtata ttactgtcag cattttgtta actcaaaatt cattttcggc 300
cctgggacca aggtggagat caaacga 327

<210> 1234
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1234
Asp Ile Val Met Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Arg Val Ser Ile Ser
            20   25   30
Tyr Leu Thr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Phe Val Asn Ser Lys
                85   90   95
Phe Ile Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1235
<211> 21
<212> DNA
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<220>
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<400> 1235
cagcgtgtta gcatcagcta c 21

<210> 1236
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1236
Gln Arg Val Ser Ile Ser Tyr
 1   5

<210> 1237
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1237
ggtgcatcc   9

<210> 1238
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1238
Gly Ala Ser
 1

<210> 1239
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1239
cagcattttg ttaactcaaa attcatt   27

<210> 1240
<211> 9
<212> PRT
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<220>
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<400> 1240
Gln His Phe Val Asn Ser Lys Phe Ile
 1   5

<210> 1241
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1241
caggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagcg 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtgataa tgtagactat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag atctgaggac acggccctgt attactgtac aaaagatata 300
ctagtaccgg attcatgggg gtggttcgat ctctggggcc gtggcaccct ggtcaccgtc 360
tcctca   366

<210> 1242
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1242
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Asp Asn Val Asp 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 Ser Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Thr Lys Asp Ile Leu Val Pro Asp Ser Trp Gly Trp Phe Asp Leu Trp
            100   105   110
Gly Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 1243
<211> 24
<212> DNA

<213> Artificial Sequence

<220>
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<400> 1243
ggattcacct ttgatgatta tgcc 24

<210> 1244
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1244
Gly Phe Thr Phe Asp Asp Tyr Ala
 1 5

<210> 1245
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1245
attagttgga atagtgataa tgta 24

<210> 1246
<211> 8
<212> PRT
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<220>
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<400> 1246
Ile Ser Trp Asn Ser Asp Asn Val
 1 5

<210> 1247
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1247
acaaaagata tactagtacc ggattcatgg gggtggttcg atctc 45

<210> 1248
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1248
Thr Lys Asp Ile Leu Val Pro Asp Ser Trp Gly Trp Phe Asp Leu
1 5 10 15

<210> 1249
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
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ctctcctgca gggccagtca gcgtgttagc agcagccact taacctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcactata ttactgtcaa cattttgtta actcaaaatt cactttcggc 300
cctgggacca aggtggagat caaacga 327

<210> 1250
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1250
Asp Ile Val Met Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Arg Val Ser Ser Ser
20 25 30
His Leu Thr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80

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

<210> 1251
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1251
cagcgtgtta gcagcagcca c 21

<210> 1252
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1252
Gln Arg Val Ser Ser Ser His
1 5

<210> 1253
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1253
ggtgcatcc 9

<210> 1254
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1254
Gly Ala Ser
1

<210> 1255
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1255
caacattttg ttaactcaaa attcact 27

<210> 1256
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1256
Gln His Phe Val Asn Ser Lys Phe Thr
1 5

<210> 1257
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1257
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tcctgtgcag cctctggatt cacctttagc agctatgcca tgagctgggt ccgccaggct 120
ccagggaggg ggctggagtg ggtctcaggt attagtggtg gtagcggtag tacatactac 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag aggcgaggac acggccgtat attactgtgc gaggtggcaa 300
cgattagagg actggttcga cccctggggc cagggaaccc tggtcaccgt ctcctca 357

<210> 1258
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1258
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly

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 1               5                  10                  15
Ser Leu Arg Val 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 Arg Gly Leu Glu Trp Val
        35                  40                  45
Ser Gly Ile Ser Gly Gly Ser Gly 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 Gly Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Trp Gln Arg Leu Glu Asp Trp Phe Asp Pro Trp Gly Gln Gly
            100                 105                 110
Thr Leu Val Thr Val Ser Ser
        115
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<210> 1259
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1259
ggattcacct ttagcagcta tgcc 24

<210> 1260
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1260

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Gly Phe Thr Phe Ser Ser Tyr Ala
 1               5
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<400> 1261
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<210> 1262
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<220>
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<400> 1262
Ile Ser Gly Gly Ser Gly Ser Thr
 1   5

<210> 1263
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<400> 1263
gcgaggtggc aacgattaga ggactggttc gacccc   36

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<400> 1264
Ala Arg Trp Gln Arg Leu Glu Asp Trp Phe Asp Pro
 1   5   10

<210> 1265
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<400> 1265
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atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaacattttg caacttactt ttgtcaacag agttacagta ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 1266
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<400> 1266
Asp Ile Leu 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 Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu His Phe Ala Thr Tyr Phe Cys Gln Gln Ser Tyr Ser Thr Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1267
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1267
cagagcatta gcagctat   18

<210> 1268
<211> 6
<212> PRT
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<220>
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<400> 1268
Gln Ser Ile Ser Ser Tyr
 1   5

<210> 1269
<211> 9

<212> DNA
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<220>
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<400> 1269
gctgcatcc 9

<210> 1270
<211> 3
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<400> 1270
Ala Ala Ser
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<210> 1271
<211> 27
<212> DNA
<213> Artificial Sequence

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<400> 1271
caacagagtt acagtacccc gtacact 27

<210> 1272
<211> 9
<212> PRT
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<220>
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<400> 1272
Gln Gln Ser Tyr Ser Thr Pro Tyr Thr
1 5

<210> 1273
<211> 372
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1273
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acctgcacct tctctgggtt ctcactcacc actagtggaa tgtgtgtgac ctggatccgt 120
cagcccccag ggaagaccct ggagtggctt gcacgcattg attgggatga tgataaatac 180
tacaacacat ctctgaagac caggctcacc atctccaagg acacctccaa aaaccaggtt 240
gtccttacaa tgaccaacat ggaccctgtg gacacagcca cgtattactg tgcacggatc 300
cacggtgact acgcccacta ctactacggt ttggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 1274
<211> 124
<212> PRT
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<400> 1274
Gln Val Gln Leu Val Glu Ser Gly Pro Ala Leu Val Arg Pro Thr Gln
 1   5   10   15
Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Thr Thr Ser
            20   25   30
Gly Met Cys Val Thr Trp Ile Arg Gln Pro Pro Gly Lys Thr Leu Glu
        35   40   45
Trp Leu Ala Arg Ile Asp Trp Asp Asp Asp Lys Tyr Tyr Asn Thr Ser
    50   55   60
Leu Lys Thr Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
65   70   75   80
Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
                85   90   95
Cys Ala Arg Ile His Gly Asp Tyr Ala His Tyr Tyr Tyr Gly Leu Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 1275
<211> 30
<212> DNA
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<400> 1275
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<210> 1276
<211> 10
<212> PRT

<213> Artificial Sequence

<220>
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<400> 1276
Gly Phe Ser Leu Thr Thr Ser Gly Met Cys
 1   5   10

<210> 1277
<211> 21
<212> DNA
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<400> 1277
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<210> 1278
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1278
Ile Asp Trp Asp Asp Asp Lys
 1   5

<210> 1279
<211> 48
<212> DNA
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<400> 1279
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<210> 1280
<211> 16
<212> PRT
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<220>
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<400> 1280
Ala Arg Ile His Gly Asp Tyr Ala His Tyr Tyr Tyr Gly Leu Asp Val
 1   5   10   15

<210> 1281
<211> 324
<212> DNA
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atcacttgtc gggcgagtca gggcattagc aattatttag cctggtttca gcagaaacca 120
gggaaagccc ctaagtccct aatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aaattcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgccaacaa tataatagtt acccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 1282
<211> 108
<212> PRT
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<220>
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<400> 1282
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser 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 Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1283
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1283
cagggcatta gcaattat 18

<210> 1284
<211> 6
<212> PRT
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<220>
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<400> 1284
Gln Gly Ile Ser Asn Tyr
1 5

<210> 1285
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1285
gctgcatcc 9

<210> 1286
<211> 3
<212> PRT
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<220>
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<400> 1286
Ala Ala Ser
1

<210> 1287
<211> 27
<212> DNA
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<220>
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<400> 1287

caacaatata atagttaccc gtacact 27

<210> 1288
<211> 9
<212> PRT
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<220>
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<400> 1288
Gln Gln Tyr Asn Ser Tyr Pro Tyr Thr
 1 5

<210> 1289
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
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tcctgtgcag cctctggatt cacctttagc acctatgcca tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcaggt attagtggta gtggtggtag ttcatattac 180
gcagactccg tgaagggccg cttcaccatc tccagagaca attccaagag cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtac gaaagccggg 300
gagcagttcg ccctctacta ctactacggt atggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 1290
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1290
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
 20 25 30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
Ser Gly Ile Ser Gly Ser Gly Gly Ser Ser Tyr Tyr Ala Asp Ser Val
 50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Ser 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
Thr Lys Ala Gly Glu Gln Phe Ala Leu Tyr Tyr Tyr Tyr Gly Met Asp
100 105 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 1291
<211> 24
<212> DNA
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<220>
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<400> 1291
ggattcacct ttagcaccta tgcc 24

<210> 1292
<211> 8
<212> PRT
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<220>
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<400> 1292
Gly Phe Thr Phe Ser Thr Tyr Ala
1 5

<210> 1293
<211> 24
<212> DNA
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<220>
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<400> 1293
attagtggta gtggtggtag ttca 24

<210> 1294
<211> 8
<212> PRT
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<220>
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<400> 1294
Ile Ser Gly Ser Gly Gly Ser Ser

 1   5

<210> 1295
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1295
acgaaagccg gggagcagtt cgccctctac tactactacg gtatggacgt c   51

<210> 1296
<211> 17
<212> PRT
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<220>
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<400> 1296
Thr Lys Ala Gly Glu Gln Phe Ala Leu Tyr Tyr Tyr Tyr Gly Met Asp
 1   5   10   15
Val

<210> 1297
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1297
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atcacttgct gggccagtca ggacattagc agtttttag cctggtatca gcaaaaacca 120
gggaaagccc ctaagctcct gatctattct gcatccactt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacag cttaatagtt atgcgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 1298
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1298
Asp Ile Gln Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Trp Ala Ser Gln Asp Ile Ser Ser Phe
            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 Ala Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1299
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1299
caggacatta gcagtttt 18

<210> 1300
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1300
Gln Asp Ile Ser Ser Phe
 1   5

<210> 1301
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1301
tctgcatcc 9

<210> 1302
<211> 3
<212> PRT
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<220>
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<400> 1302
Ser Ala Ser
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<210> 1303
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1303
caacagctta atagttatgc gctcact 27

<210> 1304
<211> 9
<212> PRT
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<220>
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<400> 1304
Gln Gln Leu Asn Ser Tyr Ala Leu Thr
 1   5

<210> 1305
<211> 381
<212> DNA
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<220>
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<400> 1305
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcaat aattactact ggagctggat ccggcagccc 120
ccaggaaagg gactggagtg gattgggtat atctattaca ttgggagcac caactacaac 180
ccctccctca agagtcgagt caccatatca gtagatacgt ccaagaacca gttctccctg 240
aagctgagct ctgtgaccgc tgcggacacg gccgtttatt actgtgcgag agaggattac 300

gatttttgga gtgcccaagg ggactactac tactacggtg tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a 381

<210> 1306
<211> 127
<212> PRT
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<220>
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<400> 1306
Glu Val Gln Leu Val 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 Asn 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 Ile Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Glu Asp Tyr Asp Phe Trp Ser Ala Gln Gly Asp Tyr Tyr Tyr Tyr
            100   105   110
Gly Val Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 1307
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1307
ggtggctcca tcaataatta ctac 24

<210> 1308
<211> 8
<212> PRT
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<220>
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<400> 1308
Gly Gly Ser Ile Asn Asn Tyr Tyr
 1   5

<210> 1309
<211> 21
<212> DNA
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<220>
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<400> 1309
atctattaca ttgggagcac c 21

<210> 1310
<211> 7
<212> PRT
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<220>
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<400> 1310
Ile Tyr Tyr Ile Gly Ser Thr
1 5

<210> 1311
<211> 63
<212> DNA
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<220>
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<400> 1311
gcgagagagg attacgattt ttggagtgcc caaggggact actactacta cggtgtggac 60
gtc 63

<210> 1312
<211> 21
<212> PRT
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<220>
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<400> 1312
Ala Arg Glu Asp Tyr Asp Phe Trp Ser Ala Gln Gly Asp Tyr Tyr Tyr
1 5 10 15
Tyr Gly Val Asp Val
20

<210> 1313
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1313
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atcacttgtc gggcgagtca gggtattagc agctggttag cctggtatca gcagaaacca 120
gggaaagccc ctaacctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaggattttg caacttacta ttgtcaacag gctaacagtt tcccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 1314
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1314
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1315
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1315
cagggtatta gcagctgg 18

<210> 1316
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1316
Gln Gly Ile Ser Ser Trp
 1   5

<210> 1317
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1317
gctgcatcc 9

<210> 1318
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1318
Ala Ala Ser
 1

<210> 1319
<211> 27
<212> DNA
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<220>
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<400> 1319
caacaggcta acagtttccc gctcact 27

<210> 1320
<211> 9
<212> PRT

<213> Artificial Sequence

<220>
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<400> 1320
Gln Gln Ala Asn Ser Phe Pro Leu Thr
 1   5

<210> 1321
<211> 357
<212> DNA
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<220>
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<400> 1321
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tcctgtgcag cctctggatt cagcttcagc agctatgcca tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcaggt attagtggta gtggtggtag cacatattac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaataa acagcctgag agtcgaggac acggccgtat attactgtgc gaggtggcaa 300
cgattagagg actggttcga cccctggggc cagggaaccc tggtcaccgt ctcctca   357

<210> 1322
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1322
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 Ser Phe Ser Ser Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Gly Ser Gly Gly 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 Ile Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Trp Gln Arg Leu Glu Asp Trp Phe Asp Pro Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 1323
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1323
ggattcagct tcagcagcta tgcc 24

<210> 1324
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1324
Gly Phe Ser Phe Ser Ser Tyr Ala
1 5

<210> 1325
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1325
attagtggta gtggtggtag caca 24

<210> 1326
<211> 8
<212> PRT
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<220>
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<400> 1326
Ile Ser Gly Ser Gly Gly Ser Thr
1 5

<210> 1327
<211> 36
<212> DNA

<213> Artificial Sequence

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<400> 1327
gcgaggtggc aacgattaga ggactggttc gacccc 36

<210> 1328
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1328
Ala Arg Trp Gln Arg Leu Glu Asp Trp Phe Asp Pro
 1   5   10

<210> 1329
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1329
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atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctattct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 1330
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1330
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 Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45

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

<210> 1331
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1331
cagagcatta gcagctat 18

<210> 1332
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1332
Gln Ser Ile Ser Ser Tyr
1 5

<210> 1333
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1333
tctgcatcc 9

<210> 1334
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1334
Ser Ala Ser
 1

<210> 1335
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1335
caacagagtt acagtacccc gtacact 27

<210> 1336
<211> 9
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<220>
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<400> 1336
Gln Gln Ser Tyr Ser Thr Pro Tyr Thr
 1 5

<210> 1337
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1337
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagt agttatgcca tgagttgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcaggt attagtggtg gtgctggtag cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctggaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaagtggcaa 300
cgattagagg actggttcga cccctggggc cagggaacca tggtcaccgt ctcctca 357

<210> 1338
<211> 119
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1338
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Gly Gly Ala Gly 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 Glu Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Trp Gln Arg Leu Glu Asp Trp Phe Asp Pro Trp Gly Gln Gly
            100   105   110
Thr Met Val Thr Val Ser Ser
        115

<210> 1339
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1339
ggattcacct ttagtagtta tgcc 24

<210> 1340
<211> 8
<212> PRT
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<220>
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<400> 1340
Gly Phe Thr Phe Ser Ser Tyr Ala
 1   5

<210> 1341
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1341
attagtggtg gtgctggtag caca 24

<210> 1342
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1342
Ile Ser Gly Gly Ala Gly Ser Thr
1 5

<210> 1343
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1343
gcgaagtggc aacgattaga ggactggttc gacccc 36

<210> 1344
<211> 12
<212> PRT
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<220>
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<400> 1344
Ala Lys Trp Gln Arg Leu Glu Asp Trp Phe Asp Pro
1 5 10

<210> 1345
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1345
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atcacttgcc ggtcaagtca gagcattaac aggtatttaa attggtatca gcagaagcca 120

gggaaagccc ctaaactcct gatctatact gcatccactt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 1346
<211> 108
<212> PRT
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<220>
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<400> 1346
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 Ser Ser Gln Ser Ile Asn Arg Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Thr 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 Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1347
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1347
cagagcatta acaggtat 18

<210> 1348
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1348
Gln Ser Ile Asn Arg Tyr
 1   5

<210> 1349
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1349
actgcatcc 9

<210> 1350
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1350
Thr Ala Ser
1

<210> 1351
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1351
caacagagtt acagtacccc gtacact 27

<210> 1352
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1352
Gln Gln Ser Tyr Ser Thr Pro Tyr Thr
1 5

<210> 1353
<211> 384

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1353
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acctgcacct tctctgggtt ctcactcagc actagtggaa tgtgtgtgaa ctggatccgt 120
cagcccccag ggaaggccct ggagtggctt acacgcattg attgggatga tgataagttc 180
tacagcacat ctctggagac caggctcacc atctccaagg acacctccaa aaaccaggtg 240
gtccttacaa tgaccaacat ggaccctgtg gacacagcca catattactg tgcacggatg 300
acactagggt atagcaggtc gtctctctac tactactacg gtatggacgt ctggggccaa 360
gggaccacgg tcaccgtctc ctca 384

<210> 1354
<211> 128
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1354
Gln Val Gln Leu Val Glu Ser Gly Pro Ala Leu Val Lys Pro Thr Gln
 1   5   10   15
Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
            20   25   30
Gly Met Cys Val Asn Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
        35   40   45
Trp Leu Thr Arg Ile Asp Trp Asp Asp Asp Lys Phe Tyr Ser Thr Ser
    50   55   60
Leu Glu Thr Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
65   70   75   80
Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
                85   90   95
Cys Ala Arg Met Thr Leu Gly Tyr Ser Arg Ser Ser Leu Tyr Tyr Tyr
            100   105   110
Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 1355
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1355
gggttctcac tcagcactag tggaatgtgt 30

<210> 1356
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1356
Gly Phe Ser Leu Ser Thr Ser Gly Met Cys
 1   5   10

<210> 1357
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1357
attgattggg atgatgataa g   21

<210> 1358
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1358
Ile Asp Trp Asp Asp Asp Lys
 1   5

<210> 1359
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1359
gcacggatga cactagggta tagcaggtcg tctctctact actactacgg tatggacgtc 60

<210> 1360
<211> 20

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1360
Ala Arg Met Thr Leu Gly Tyr Ser Arg Ser Ser Leu Tyr Tyr Tyr Tyr
 1   5   10   15
Gly Met Asp Val
            20

<210> 1361
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1361
gacatcgtga tgacccagtc tccagtctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtca gcatctcctg catagtaatg gatacaacta tttggattgg 120
tacctgcaga agccagggca gtctccacag ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcagagtgg aggctgagga tgttggaatt tattactgca tgcaagctct acaaactccg 300
tacacttttg gccaggggac caaggtggag atcaaacga   339

<210> 1362
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1362
Asp Ile Val Met Thr Gln Ser Pro Val Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln His Leu Leu His Ser
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Ile Tyr Tyr Cys Met Gln Ala
                85   90   95
Leu Gln Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

Arg

<210> 1363
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1363
cagcatctcc tgcatagtaa tggatacaac tat 33

<210> 1364
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1364
Gln His Leu Leu His Ser Asn Gly Tyr Asn Tyr
1 5 10

<210> 1365
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1365
ttgggttct 9

<210> 1366
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1366
Leu Gly Ser
1

<210> 1367
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1367
atgcaagctc tacaaactcc gtacact 27

<210> 1368
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1368
Met Gln Ala Leu Gln Thr Pro Tyr Thr
1 5

<210> 1369
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1369
gaggtgcagc tggtggagtc tgggggagcc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgtag cctctggatt cacctttagc agctatgcca tgacctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtgttaa cacatactac 180
acagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagtctgag agccgaggac acggccgtat atttctgtgc gcaaagcggg 300
gatttttgga gtggttctta tgactactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 1370
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1370
Glu Val Gln Leu Val Glu Ser Gly Gly Ala Leu Val Gln Pro Gly Gly
1 5 10 15

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Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20                  25                  30
Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ala Ile Ser Gly Ser Gly Val Asn Thr Tyr Tyr Thr 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 Gln Ser Gly Asp Phe Trp Ser Gly Ser Tyr Asp Tyr Trp Gly Gln
            100                 105                 110
Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 1371
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1371
ggattcacct ttagcagcta tgcc 24

<210> 1372
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1372
Gly Phe Thr Phe Ser Ser Tyr Ala
 1   5

<210> 1373
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1373
attagtggta gtggtgttaa caca 24

<210> 1374

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

<220>
<223> synthetic

<400> 1374
Ile Ser Gly Ser Gly Val Asn Thr
 1   5

<210> 1375
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1375
gcgcaaagcg gggatttttg gagtggttct tatgactac   39

<210> 1376
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1376
Ala Gln Ser Gly Asp Phe Trp Ser Gly Ser Tyr Asp Tyr
 1   5   10

<210> 1377
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1377
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atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagttcct gatctatact gcatccagtt tacaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tggcacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacaa gattacaatt acccattcac tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 1378
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1378
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
            20   25   30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Phe Leu Ile
        35   40   45
Tyr Thr Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Asp Tyr Asn Tyr Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1379
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1379
cagggcatta gaaatgat   18

<210> 1380
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1380
Gln Gly Ile Arg Asn Asp
 1   5

<210> 1381
<211> 9
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 1381
actgcatcc 9

<210> 1382
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1382
Thr Ala Ser
1

<210> 1383
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1383
ctacaagatt acaattaccc attcact 27

<210> 1384
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1384
Leu Gln Asp Tyr Asn Tyr Pro Phe Thr
1 5

<210> 1385
<211> 354
<212> DNA
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<220>
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<400> 1385
caggtgcagc tggtggagtc tgggggaggc ttagtacagc cgggggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc acctatgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg gatctcagct attagtagta gtggtgttag cacatactac 180
gcagactccg tgaagggccg cttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcacctga acagcctgag agccgacgac acggccgtat atcactgtgc gcaaggcaac 300
agttggtact actttgatta ctggggccag ggaaccacgg tcaccgtctc ctca 354

<210> 1386
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1386
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
            20   25   30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Ser Ala Ile Ser Ser Ser Gly Val 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 His Leu Asn Ser Leu Arg Ala Asp Asp Thr Ala Val Tyr His Cys
                85   90   95
Ala Gln Gly Asn Ser Trp Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
            100   105   110
Thr Val Thr Val Ser Ser
        115

<210> 1387
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1387
ggattcacct ttagcaccta tgcc 24

<210> 1388
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1388
Gly Phe Thr Phe Ser Thr Tyr Ala
 1   5

<210> 1389
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1389
attagtagta gtggtgttag caca   24

<210> 1390
<211> 8
<212> PRT
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<220>
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<400> 1390
Ile Ser Ser Ser Gly Val Ser Thr
 1   5

<210> 1391
<211> 33
<212> DNA
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<220>
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<400> 1391
gcgcaaggca acagttggta ctactttgat tac   33

<210> 1392
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1392

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Ala Gln Gly Asn Ser Trp Tyr Tyr Phe Asp Tyr
 1               5                  10
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<210> 1393
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1393
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ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcggtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgctttgta ttactgtcag cagtatggtg gctcaccgat caccttcggc 300
caagggacac gactggagat taaacga 327

<210> 1394
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1394

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Asp Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Phe 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
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35                  40                  45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50                  55                  60
Gly Gly Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65                  70                  75                  80
Pro Glu Asp Phe Ala Leu Tyr Tyr Cys Gln Gln Tyr Gly Gly Ser Pro
                85                  90                  95
Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
            100                 105
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<210> 1395
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1395
cagagtgtta gcagcagcta c 21

<210> 1396
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1396
Gln Ser Val Ser Ser Ser Tyr
1 5

<210> 1397
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1397
ggtgcatcc 9

<210> 1398
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1398
Gly Ala Ser
1

<210> 1399
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1399
cagcagtatg gtggctcacc gatcacc 27

<210> 1400
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1400
Gln Gln Tyr Gly Gly Ser Pro Ile Thr
 1   5

<210> 1401
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1401
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tcctgtgcag cctctggatt cacctttagc acctatgcca tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcaggt attagtggta gtggtggtag ttcatattac 180
gcagactccg tgaagggccg cttcaccatc tccagagaca attccaagag cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtac gaaagccggg 300
gagcagttcg ccctctacta ctactacggt atggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca   372

<210> 1402
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1402
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Gly Ser Gly Gly Ser Ser Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Ser 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
Thr Lys Ala Gly Glu Gln Phe Ala Leu Tyr Tyr Tyr Tyr Gly Met Asp

100 105 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 1403
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1403
ggattcacct ttagcaccta tgcc 24

<210> 1404
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1404
Gly Phe Thr Phe Ser Thr Tyr Ala
1 5

<210> 1405
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1405
attagtggta gtggtggtag ttca 24

<210> 1406
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1406
Ile Ser Gly Ser Gly Gly Ser Ser
1 5

<210> 1407
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1407
acgaaagccg gggagcagtt cgccctctac tactactacg gtatggacgt c 51

<210> 1408
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1408
Thr Lys Ala Gly Glu Gln Phe Ala Leu Tyr Tyr Tyr Tyr Gly Met Asp
1 5 10 15
Val

<210> 1409
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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gggaaagccc ctaagctcct gatctattct gcatccactt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacag cttaatagtt atgcgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 1410
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<220>
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<400> 1410

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 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Trp Ala Ser Gln Asp Ile Ser Ser Phe
            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 Ala Leu
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 1411
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<400> 1411
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<210> 1412
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<400> 1412
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<400> 1413
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<210> 1414

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<210> 1415
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<220>
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<400> 1415
caacagctta atagttatgc gctcact 27

<210> 1416
<211> 9
<212> PRT
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<400> 1416
Gln Gln Leu Asn Ser Tyr Ala Leu Thr
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<210> 1417
<211> 360
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ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtgttaa cacatactac 180
acagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agtcgaggac acggccgtat atttctgtgc gcaaagcggg 300
gatttttgga gtggttctta tgactactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 1418
<211> 120
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<220>
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<400> 1418
Glu Val Gln Leu Val Glu Ser Gly Gly Ala Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Ala Met Thr Trp Val Arg Gln Gly Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Ser Gly Ser Gly Val Asn Thr Tyr Tyr Thr Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Phe Cys
                85   90   95
Ala Gln Ser Gly Asp Phe Trp Ser Gly Ser Tyr Asp Tyr Trp Gly Gln
            100   105   110
Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 1419
<211> 24
<212> DNA
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<220>
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<400> 1419
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<210> 1420
<211> 8
<212> PRT
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<220>
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<400> 1420
Gly Phe Thr Phe Ser Ser Tyr Ala
 1   5

<210> 1421
<211> 24
<212> DNA
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<220>
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<400> 1421
attagtggta gtggtgttaa caca 24

<210> 1422
<211> 8
<212> PRT
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<220>
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<400> 1422
Ile Ser Gly Ser Gly Val Asn Thr
1 5

<210> 1423
<211> 39
<212> DNA
<213> Artificial Sequence

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<400> 1423
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<210> 1424
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<213> Artificial Sequence

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<400> 1424
Ala Gln Ser Gly Asp Phe Trp Ser Gly Ser Tyr Asp Tyr
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<210> 1425
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<212> DNA
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gggaaagccc ctaagttcct gatctatact gcatccagtt tacaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tggcacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacaa gattacaatt acccattcac tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 1426
<211> 108
<212> PRT
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<220>
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<400> 1426
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
            20   25   30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Phe Leu Ile
        35   40   45
Tyr Thr Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Asp Tyr Asn Tyr Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1427
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1427
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<210> 1428
<211> 6
<212> PRT
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<220>
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<400> 1428
Gln Gly Ile Arg Asn Asp
 1   5

<210> 1429
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1429
actgcatcc   9

<210> 1430
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1430
Thr Ala Ser
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<210> 1431
<211> 27
<212> DNA
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<400> 1431
ctacaagatt acaattaccc attcact   27

<210> 1432
<211> 9
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<400> 1432
Leu Gln Asp Tyr Asn Tyr Pro Phe Thr
 1   5

<210> 1433
<211> 372
<212> DNA
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ccagggaagg ggctggagtg ggtctcaacc actagtggta gtggtggtag cccacactac 180
gcagcctccg tgaagggccg gttcaccatc tccagagaca attccaagaa tacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat atttctgtgc gaaaatagat 300
acagctatgg ccctctacta ctactacgct atggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca   372

<210> 1434
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<400> 1434
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 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Asn Tyr
            20   25   30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Thr Thr Ser Gly Ser Gly Gly Ser Pro His Tyr Ala Ala 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 Ile Asp Thr Ala Met Ala Leu Tyr Tyr Tyr Tyr Ala Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 1435
<211> 24
<212> DNA

<213> Artificial Sequence

<220>
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<400> 1435
ggattcacct ttagaaacta tgcc 24

<210> 1436
<211> 8
<212> PRT
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<220>
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<400> 1436
Gly Phe Thr Phe Arg Asn Tyr Ala
 1 5

<210> 1437
<211> 24
<212> DNA
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<220>
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<400> 1437
actagtggta gtggtggtag ccca 24

<210> 1438
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1438
Thr Ser Gly Ser Gly Gly Ser Pro
 1 5

<210> 1439
<211> 51
<212> DNA
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<400> 1439
gcgaaaatag atacagctat ggccctctac tactactacg ctatggacgt c 51

<210> 1440
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1440
Ala Lys Ile Asp Thr Ala Met Ala Leu Tyr Tyr Tyr Tyr Ala Met Asp
 1 5 10 15
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<210> 1441
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1441
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gggaaagccc ctaagctcct gatctatgct gcatccactt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacag cttaatagtt accctctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 1442
<211> 108
<212> PRT
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<220>
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<400> 1442
Asp Ile Leu Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1 5 10 15
Asp Arg Val Thr Ile Thr Cys Trp Ala Ser Gln Gly Ile Ser Ser Tyr
 20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45
Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser 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 Leu
85 90 95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 1443
<211> 18
<212> DNA
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<220>
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<400> 1443
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<210> 1444
<211> 6
<212> PRT
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<220>
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<400> 1444
Gln Gly Ile Ser Ser Tyr
1 5

<210> 1445
<211> 9
<212> DNA
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<220>
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<400> 1445
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<210> 1446
<211> 3
<212> PRT
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<220>
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<400> 1446

Ala Ala Ser
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<210> 1447
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1447
caacagctta atagttaccc tctcact 27

<210> 1448
<211> 9
<212> PRT
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<220>
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<400> 1448
Gln Gln Leu Asn Ser Tyr Pro Leu Thr
 1 5

<210> 1449
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
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ccagggaagg gactggagtg gattggatat ttccattata gtgggagaac caactacaac 180
ccctccctca agagtcgagt ttctatatca gtggacacgt ccaagaatca gttctccctg 240
aacctgaact ttgtgagcgc cgcagacacg gccgtttatt actgtgcgcg ggactccaag 300
gtcattgcag caatcccaag tgctcactgg tatttcgatc cctggggccg tggcacaatg 360
gtcaccgtct cctca 375

<210> 1450
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1450
Gln Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Arg Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Ala Ser Ile Ser Asn Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Phe His Tyr Ser Gly Arg Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Ser Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Asn Leu Asn Phe Val Ser Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Ser Lys Val Ile Ala Ala Ile Pro Ser Ala His Trp Tyr Phe
            100   105   110
Asp Pro Trp Gly Arg Gly Thr Met Val Thr Val Ser Ser
        115   120   125

<210> 1451
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1451
ggtgcctcca tcagtaatta ctac 24

<210> 1452
<211> 8
<212> PRT
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<220>
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<400> 1452
Gly Ala Ser Ile Ser Asn Tyr Tyr
 1   5

<210> 1453
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1453
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<210> 1454
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1454
Phe His Tyr Ser Gly Arg Thr
1 5

<210> 1455
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1455
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<210> 1456
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1456
Ala Arg Asp Ser Lys Val Ile Ala Ala Ile Pro Ser Ala His Trp Tyr
1 5 10 15
Phe Asp Pro

<210> 1457
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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atcacttgcc gggcaagtca gaacattaga acctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaattcct gatctatgct gcatccagtt tgcgaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcggcag tctgcaacct 240
gaggactttg caacttacta ctgtcaccag agttacggta ccccgatcac cttcggccaa 300
gggaccaaac tggagatcaa acga 324

<210> 1458
<211> 108
<212> PRT
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<220>
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<400> 1458
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 Asn Ile Arg Thr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Phe Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Arg Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Gly Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys His Gln Ser Tyr Gly Thr Pro Ile
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
            100   105

<210> 1459
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1459
cagaacatta gaacctat 18

<210> 1460
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1460
Gln Asn Ile Arg Thr Tyr

1 5

<210> 1461
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1461
gctgcatcc 9

<210> 1462
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1462
Ala Ala Ser
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<210> 1463
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1463
caccagagtt acggtacccc gatcacc 27

<210> 1464
<211> 9
<212> PRT
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<220>
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<400> 1464
His Gln Ser Tyr Gly Thr Pro Ile Thr
1 5

<210> 1465

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

<220>
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acctgcactg tctctggtgg ctccatcagt aattactact ggagctggat ccggcagccc 120
ccagggaagg gactggagtg gattgggtat atctattaca gtgggagcac caaatacaac 180
ccctccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aaactgaatt ctgtgaccgc tgcggacacg gccgtgtatt actgtgcgag agaggattac 300
gatttttgga gtgcccaagg ggactactac tattacggtg tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a 381

<210> 1466
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1466
Glu Val Gln Leu Val 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 Ser Thr Lys 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 Asn Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Glu Asp Tyr Asp Phe Trp Ser Ala Gln Gly Asp Tyr Tyr Tyr Tyr
            100   105   110
Gly Val Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 1467
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1467

ggtggctcca tcagtaatta ctac 24

<210> 1468
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1468
Gly Gly Ser Ile Ser Asn Tyr Tyr
1 5

<210> 1469
<211> 21
<212> DNA
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<220>
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<400> 1469
atctattaca gtgggagcac c 21

<210> 1470
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1470
Ile Tyr Tyr Ser Gly Ser Thr
1 5

<210> 1471
<211> 63
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1471
gcgagagagg attacgattt ttggagtgcc caaggggact actactatta cggtgtggac 60
gtc 63

<210> 1472

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

<220>
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<400> 1472
Ala Arg Glu Asp Tyr Asp Phe Trp Ser Ala Gln Gly Asp Tyr Tyr Tyr
 1   5   10   15
Tyr Gly Val Asp Val
            20

<210> 1473
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1473
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atcacttgtc gggcgagtca ggatattagc aactggttag cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgat gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcggtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaacagtt tcccgctcac tttcggcgga 300
gggaccaagg tggaaatcaa acga   324

<210> 1474
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1474
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Asn Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Asp Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Gly 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 Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg

100 105

<210> 1475
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1475
caggatatta gcaactgg 18

<210> 1476
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1476
Gln Asp Ile Ser Asn Trp
1 5

<210> 1477
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1477
gatgcatcc 9

<210> 1478
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1478
Asp Ala Ser
1

<210> 1479

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

<220>
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<400> 1479
caacaggcta acagtttccc gctcact 27

<210> 1480
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1480
Gln Gln Ala Asn Ser Phe Pro Leu Thr
 1 5

<210> 1481
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1481
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acctgcactg tctctggtgg ctccatcagt acttactact ggaattggat ccggcagccc 120
ccagggaagg gactggaatt gattgggtat atctataaga gtgggaaaaa caattataat 180
ccctccctca agagtcgcgt caccataaaa gtagacacgt ccaagaacca gttgtccctg 240
aacctgagct ctgtcaccgc tgcggacacg gccgtgtatt attgtgcgcg agaggggggg 300
ggactcccta cgggggata ttttgaccag tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1482
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1482
Glu Val Gln Leu Val 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 Thr Tyr

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            20                  25                  30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Leu Ile
        35                  40                  45
Gly Tyr Ile Tyr Lys Ser Gly Lys Asn Asn Tyr Asn Pro Ser Leu Lys
    50                  55                  60
Ser Arg Val Thr Ile Lys Val Asp Thr Ser Lys Asn Gln Leu Ser Leu
65                  70                  75                  80
Asn Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Gln Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 1483
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1483
ggtggctcca tcagtactta ctac 24

<210> 1484
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1484
Gly Gly Ser Ile Ser Thr Tyr Tyr
 1   5

<210> 1485
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1485
atctataaga gtgggaaaaa c 21

<210> 1486
<211> 7

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1486
Ile Tyr Lys Ser Gly Lys Asn
 1   5

<210> 1487
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1487
gcgcgagagg gggggggact ccctacgggg ggatattttg accag   45

<210> 1488
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1488
Ala Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Gln
 1   5   10   15

<210> 1489
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1489
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca aaacattagg agttatttaa attggtatca actgaaacca 120
ggaaaagccc ctaatctcct gatctatgct gcatccaatt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttactc ctgtcaacag agttacagtc acccttacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 1490

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

<220>
<223> synthetic

<400> 1490
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 Asn Ile Arg Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Leu Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Ser Cys Gln Gln Ser Tyr Ser His Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1491
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1491
caaaacatta ggagttat   18

<210> 1492
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1492
Gln Asn Ile Arg Ser Tyr
 1   5

<210> 1493
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1493
gctgcatcc 9

<210> 1494
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1494
Ala Ala Ser
1

<210> 1495
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1495
caacagagtt acagtcaccc ttacact 27

<210> 1496
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1496
Gln Gln Ser Tyr Ser His Pro Tyr Thr
1 5

<210> 1497
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1497
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt acttactact ggaattggat ccggcagtcc 120
ccagggaagg gactggaatt gattgggtat atctataaga gtggaagaaa cttctataat 180
ccctccctca agagtcgagt caccatagca gtagacacgt ccacgaacca gttgtcgctg 240
aggttgacct cagtgaccgc tgcggacacg gccgtgtatt actgtgtgag agaggggggg 300
ggactcccta cgggggggata ctttgactcc tggggccagg gaaccacggt caccgtctcc 360
tca 363

<210> 1498
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1498
Glu Val Gln Leu Val 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 Thr Tyr
            20   25   30
Tyr Trp Asn Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Leu Ile
        35   40   45
Gly Tyr Ile Tyr Lys Ser Gly Arg Asn Phe Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ala Val Asp Thr Ser Thr Asn Gln Leu Ser Leu
65   70   75   80
Arg Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Val
                85   90   95
Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser Trp Gly
            100   105   110
Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 1499
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1499
ggtggctcca tcagtactta ctac 24

<210> 1500
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1500
Gly Gly Ser Ile Ser Thr Tyr Tyr
 1   5

<210> 1501
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1501
atctataaga gtggaagaaa c   21

<210> 1502
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1502
Ile Tyr Lys Ser Gly Arg Asn
 1   5

<210> 1503
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1503
gtgagagagg gggggggact ccctacgggg ggatactttg actcc   45

<210> 1504
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1504

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

<210> 1505
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1505
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca aaacattagg aattatttaa attggtatca actgaaacca 120
gggaaagccc ctaacctcct gatctatgct acatccaatt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctct ccatcagcag tctgcaacct 240
gaagattttg caacttactc ctgtcaacag agttacagta acccttacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 1506
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1506
Asp Ile Leu 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 Asn Ile Arg Asn Tyr
            20   25   30
Leu Asn Trp Tyr Gln Leu Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Thr Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Ser Cys Gln Gln Ser Tyr Ser Asn Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1507
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1507
caaaacatta ggaattat 18

<210> 1508
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1508
Gln Asn Ile Arg Asn Tyr
1 5

<210> 1509
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1509
gctacatcc 9

<210> 1510
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1510
Ala Thr Ser
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<210> 1511
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1511
caacagagtt acagtaaccc ttacact 27

<210> 1512
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1512
Gln Gln Ser Tyr Ser Asn Pro Tyr Thr
 1   5

<210> 1513
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1513
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc agctatgcca tgagctgggt ccgccaggct 120
ccagggaggg ggctggagtg ggtctcaggt attagtggtg gtagtggtag tacatactac 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag ggccgaggac acggccgtat attactgtgc gaggtggcaa 300
cgattagagg actggttcga cccctggggc cagggaaccc tggtcaccgt ctcctca   357

<210> 1514
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1514
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 Arg Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Gly Gly Ser Gly 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 Tyr Cys
                85   90   95
Ala Arg Trp Gln Arg Leu Glu Asp Trp Phe Asp Pro Trp Gly Gln Gly
            100   105   110

Thr Leu Val Thr Val Ser Ser
        115

<210> 1515
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1515
ggattcacct ttagcagcta tgcc 24

<210> 1516
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1516
Gly Phe Thr Phe Ser Ser Tyr Ala
 1   5

<210> 1517
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1517
attagtggtg gtagtggtag taca 24

<210> 1518
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1518
Ile Ser Gly Gly Ser Gly Ser Thr
 1   5

<210> 1519
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1519
gcgaggtggc aacgattaga ggactggttc gacccc 36

<210> 1520
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1520
Ala Arg Trp Gln Arg Leu Glu Asp Trp Phe Asp Pro
 1 5 10

<210> 1521
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1521
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttactt ttgtcaacag agttacagta ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 1522
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1522
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 Ser Ile Ser Asn Tyr

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            20                  25                  30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Ser Tyr Ser Thr Pro Tyr
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 1523
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1523
cagagcatta gcaactat 18

<210> 1524
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1524
Gln Ser Ile Ser Asn Tyr
1 5

<210> 1525
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1525
gctgcatcc 9

<210> 1526
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1526
Ala Ala Ser
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<210> 1527
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1527
caacagagtt acagtacccc gtacact 27

<210> 1528
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1528
Gln Gln Ser Tyr Ser Thr Pro Tyr Thr
 1 5

<210> 1529
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1529
gaggtgcagc tggtggagtc gggcccagga ctggtgaggc cttcggagac cctgtccctc 60
acctgcactg tctctggtgc ctccattagt ggttattatt gcagttggat ccggcagccc 120
ccaggtaagg gactggagtg gattggatat atctattaca gtgggagcag caagtacaac 180
ccctccctcg agagtcgagt caccatgtca gtagacacgt ccaagaacca gttctccctg 240
aggctgaggt ctgtgaccgc tgcggacacg gccgtgtatt actgtgcgag agatgacggg 300
gactacaatg gtatggacgt ctggggccag gggaccacgg tcaccgtctc ctca 354

<210> 1530
<211> 118
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 1530
Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Arg Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Ala Ser Ile Ser Gly Tyr
            20   25   30
Tyr Cys Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Tyr Ser Gly Ser Ser Lys Tyr Asn Pro Ser Leu Glu
    50   55   60
Ser Arg Val Thr Met Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Arg Leu Arg Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Asp Gly Asp Tyr Asn Gly Met Asp Val Trp Gly Gln Gly Thr
            100   105   110
Thr Val Thr Val Ser Ser
        115

<210> 1531
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1531
ggtgcctcca ttagtggtta ttat   24

<210> 1532
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1532
Gly Ala Ser Ile Ser Gly Tyr Tyr
 1   5

<210> 1533
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1533
atctattaca gtgggagcag c 21

<210> 1534
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1534
Ile Tyr Tyr Ser Gly Ser Ser
1 5

<210> 1535
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1535
gcgagagatg acggggacta caatggtatg gacgtc 36

<210> 1536
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1536
Ala Arg Asp Asp Gly Asp Tyr Asn Gly Met Asp Val
1 5 10

<210> 1537
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1537
gacatcctga tgacccagtc tccactctcc ctgcccgtca cccttggaca ggcggcctcc 60
atctcctgta ggtctagtga aggcctcata tacagtgatg gaaagtccta cttgaattgg 120
tttcaccaga ggccaggcca gcctccaagg cgcctaattt ataaggtttc taaccgggac 180
tctggggtcc cagacagatt cagcggcagt gggtcaggca ctgatttcac actgaaaatc 240
agcagggtgg aggctgagga tgttggactt tattactgca tgcaaagtac ccactggccg 300
ctcactttcg gcggagggac caaggtggag atcaaacga 339

<210> 1538
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1538
Asp Ile Leu Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
 1   5   10   15
Gln Ala Ala Ser Ile Ser Cys Arg Ser Ser Glu Gly Leu Ile Tyr Ser
            20   25   30
Asp Gly Lys Ser Tyr Leu Asn Trp Phe His Gln Arg Pro Gly Gln Pro
        35   40   45
Pro Arg Arg Leu Ile Tyr Lys Val Ser Asn Arg Asp Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Leu Tyr Tyr Cys Met Gln Ser
                85   90   95
Thr His Trp Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105   110
Arg

<210> 1539
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1539
gaaggcctca tatacagtga tggaaagtcc tac 33

<210> 1540
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1540
Glu Gly Leu Ile Tyr Ser Asp Gly Lys Ser Tyr
 1   5   10

<210> 1541
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1541
aaggtttct   9

<210> 1542
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1542
Lys Val Ser
 1

<210> 1543
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1543
atgcaaagta cccactggcc gctcact   27

<210> 1544
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1544
Met Gln Ser Thr His Trp Pro Leu Thr

 1   5

<210> 1545
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1545
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc acccatgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtagta gtggtggtag cacatactac 180
gcagtacccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgt ggaaggcaac 300
agctggtact actttgagta ctggggccag ggaaccctgg tcaccgtctc ctca   354

<210> 1546
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1546
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 His
            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 Ser Ser Gly Gly Ser Thr Tyr Tyr Ala Val Pro Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Val Glu Gly Asn Ser Trp Tyr Tyr Phe Glu Tyr Trp Gly Gln Gly Thr
            100   105   110
Leu Val Thr Val Ser Ser
        115

<210> 1547
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1547
ggattcacct ttagcaccca tgcc 24

<210> 1548
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1548
Gly Phe Thr Phe Ser Thr His Ala
1 5

<210> 1549
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1549
attagtagta gtggtggtag caca 24

<210> 1550
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1550
Ile Ser Ser Ser Gly Gly Ser Thr
1 5

<210> 1551
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1551
gtggaaggca acagctggta ctactttgag tac 33

<210> 1552
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1552
Val Glu Gly Asn Ser Trp Tyr Tyr Phe Glu Tyr
 1   5   10

<210> 1553
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1553
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcaactact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtacatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccgtcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cagtatggtg gctcaccgat caccttcggc 300
caagggacac gactggagat taaacga   327

<210> 1554
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1554
Asp Ile Val Met 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 Asn
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Thr Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Val Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Gly Ser Pro
                85   90   95
Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg

100 105

<210> 1555
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<220>
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<400> 1555
cagagtgtta gcagcaacta c 21

<210> 1556
<211> 7
<212> PRT
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<220>
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<400> 1556
Gln Ser Val Ser Ser Asn Tyr
1 5

<210> 1557
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1557
ggtacatcc 9

<210> 1558
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1558
Gly Thr Ser
1

<210> 1559

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

<220>
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<400> 1559
cagcagtatg gtggctcacc gatcacc 27

<210> 1560
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 1560
Gln Gln Tyr Gly Gly Ser Pro Ile Thr
1 5

<210> 1561
<211> 363
<212> DNA
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<220>
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<400> 1561
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt acttactact ggaattggat ccggcagccc 120
ccagggaagg gactggaatt gattggatat atctataaga gtggaagaaa cttcaataat 180
ccctccctca agagtcgagt caccatagca gtagacacgt ccacgaacca gttgtcgctg 240
aagttgacct cagtgaccgc tgcggacacg gccgtgtatt actgtgcgag agagggggag 300
ggactcccaa cgggggata ctatgactcc tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1562
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1562
Glu Val Gln Leu Val 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 Thr Tyr

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            20                  25                  30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Leu Ile
        35                  40                  45
Gly Tyr Ile Tyr Lys Ser Gly Arg Asn Phe Asn Asn Pro Ser Leu Lys
    50                  55                  60
Ser Arg Val Thr Ile Ala Val Asp Thr Ser Thr Asn Gln Leu Ser Leu
65                  70                  75                  80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Tyr Asp Ser Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 1563
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1563
ggtggctcca tcagtactta ctac 24

<210> 1564
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1564
Gly Gly Ser Ile Ser Thr Tyr Tyr
 1   5

<210> 1565
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1565
atctataaga gtggaagaaa c 21

<210> 1566
<211> 7

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1566
Ile Tyr Lys Ser Gly Arg Asn
 1   5

<210> 1567
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1567
gcgagagagg gggggggact cccaacgggg ggatactatg actcc   45

<210> 1568
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1568
Ala Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Tyr Asp Ser
 1   5   10   15

<210> 1569
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1569
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca aaacattagg aattatttaa attggtatca actgaaacca 120
gggaaagccc ctaacctcct gatctatgct acatccaatt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctct ccatcagcag tctgcaacct 240
gaagattttg caacttactc ctgtcaacag agttacagta acccttacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 1570

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

<220>
<223> synthetic

<400> 1570
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 Asn Ile Arg Asn Tyr
            20   25   30
Leu Asn Trp Tyr Gln Leu Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Thr Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Ser Cys Gln Gln Ser Tyr Ser Asn Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1571
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1571
caaaacatta ggaattat   18

<210> 1572
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1572
Gln Asn Ile Arg Asn Tyr
 1   5

<210> 1573
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1573
gctacatcc 9

<210> 1574
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1574
Ala Thr Ser
1

<210> 1575
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1575
caacagagtt acagtaaccc ttacact 27

<210> 1576
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1576
Gln Gln Ser Tyr Ser Asn Pro Tyr Thr
1 5

<210> 1577
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1577
caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt acttactact ggaattggat ccggcagccc 120
ccagggaagg gactggaatt gattggatat atctataaga gtggaagaaa cttcaataat 180
ccctccctca agagtcgagt caccatagca gtagacacgt ccacgaacca gttgtcgctg 240
aagttgacct cagtgaccgc tgcggacacg gccgtgtatt actgtgcgag agagggggag 300
ggactcccaa cgggggata ctatgactcc tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1578
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1578
Gln Val Gln Leu Val 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 Thr Tyr
            20   25   30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Leu Ile
        35   40   45
Gly Tyr Ile Tyr Lys Ser Gly Arg Asn Phe Asn Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ala Val Asp Thr Ser Thr Asn Gln Leu Ser Leu
65   70   75   80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Tyr Asp Ser Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 1579
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1579
ggtggctcca tcagtactta ctac 24

<210> 1580
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1580
Gly Gly Ser Ile Ser Thr Tyr Tyr
 1   5

<210> 1581
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1581
atctataaga gtggaagaaa c   21

<210> 1582
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1582
Ile Tyr Lys Ser Gly Arg Asn
 1   5

<210> 1583
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1583
gcgagagagg gggggggact cccaacgggg ggatactatg actcc   45

<210> 1584
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1584

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Ala Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Tyr Asp Ser
 1               5                  10                  15
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<210> 1585
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1585
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca aaacattagg aattatttaa attggtatca actgaaacca 120
gggaaagccc ctaacctcct gatctatgct acatccaatt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctct ccatcagcag tctgcaacct 240
gaagattttg caacttactc ctgtcaacag agttacagta acccttacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 1586
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1586

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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asn Ile Arg Asn Tyr
            20                  25                  30
Leu Asn Trp Tyr Gln Leu Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35                  40                  45
Tyr Ala Thr Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Ser Cys Gln Gln Ser Tyr Ser Asn Pro Tyr
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 1587
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1587
caaaacatta ggaattat 18

<210> 1588
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1588
Gln Asn Ile Arg Asn Tyr
1 5

<210> 1589
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1589
gctacatcc 9

<210> 1590
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1590
Ala Thr Ser
1

<210> 1591
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1591
caacagagtt acagtaaccc ttacact 27

<210> 1592
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1592
Gln Gln Ser Tyr Ser Asn Pro Tyr Thr
 1   5

<210> 1593
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1593
caggtgcagc tggtggagtc gggcccagga ctggtgaggc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt aatgactact ggagctggat ccgacagacc 120
ccagggaagg gactggagtg gattggatat ttccattata gtgggagaac caactacaac 180
ccctccctca agagtcgagt ttctatatca gtggacacgt ccaagaatca gttctccctg 240
aacctgagct ttgtgagcgc cgcagacacg gccgtttatt actgtgcgcg ggactccaag 300
gtcattgcag caatcccaag tgctcactgg tatttcgatc cctggggccg tggcacactg 360
gtcaccgtct cctca   375

<210> 1594
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1594
Gln Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Arg Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Asn Asp
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Phe His Tyr Ser Gly Arg Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Ser Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Asn Leu Ser Phe Val Ser Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Ser Lys Val Ile Ala Ala Ile Pro Ser Ala His Trp Tyr Phe

100 105 110
Asp Pro Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 1595
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1595
ggtggctcca tcagtaatga ctac 24

<210> 1596
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1596
Gly Gly Ser Ile Ser Asn Asp Tyr
1 5

<210> 1597
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1597
ttccattata gtgggagaac c 21

<210> 1598
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1598
Phe His Tyr Ser Gly Arg Thr
1 5

<210> 1599
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1599
gcgcgggact ccaaggtcat tgcagcaatc ccaagtgctc actggtattt cgatccc 57

<210> 1600
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1600
Ala Arg Asp Ser Lys Val Ile Ala Ala Ile Pro Ser Ala His Trp Tyr
 1   5   10   15
Phe Asp Pro

<210> 1601
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1601
gacatcctga tgacccagtc tccatcctcc ctgtctgcct ctgtgggaga cagagtcacc 60
atcacttgcc gggcaagtca gaacattaga acctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatgct gcatccagtt tgcgaagtga ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcggcag tctgcaacct 240
gaggactttg caacttacta ctgtcaccag agttacggta ccccgatcac cttcggccaa 300
gggaccaaac tggagatcaa acga 324

<210> 1602
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1602

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

<210> 1603
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1603
cagaacatta gaacctat 18

<210> 1604
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1604
Gln Asn Ile Arg Thr Tyr
 1   5

<210> 1605
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1605
gctgcatcc 9

<210> 1606

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

<220>
<223> synthetic

<400> 1606
Ala Ala Ser
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<210> 1607
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1607
caccagagtt acggtacccc gatcacc 27

<210> 1608
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1608
His Gln Ser Tyr Gly Thr Pro Ile Thr
 1   5

<210> 1609
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1609
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt acttactact ggaattggat ccggcagccc 120
ccagggaagg gactggaatt gattgggtat atctataaga gtggaagaaa cttctataat 180
ccctccctca agagtcgagt catcatagca gtagacacgt ccacgaacca gttgtcgctg 240
aagttgacct cagtgaccgc tgcggacacg gccgtgtatt actgtgcgag agagggggggg 300
ggactcccta cgggggggata ctttgactcc tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1610
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1610
Glu Val Gln Leu Val 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 Thr Tyr
            20   25   30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Leu Ile
        35   40   45
Gly Tyr Ile Tyr Lys Ser Gly Arg Asn Phe Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Ile Ile Ala Val Asp Thr Ser Thr Asn Gln Leu Ser Leu
65   70   75   80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 1611
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1611
ggtggctcca tcagtactta ctac   24

<210> 1612
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1612
Gly Gly Ser Ile Ser Thr Tyr Tyr
 1   5

<210> 1613
<211> 21
<212> DNA
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<220>
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<400> 1613
atctataaga gtggaagaaa c 21

<210> 1614
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1614
Ile Tyr Lys Ser Gly Arg Asn
1 5

<210> 1615
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1615
gcgagagagg gggggggact ccctacgggg ggatactttg actcc 45

<210> 1616
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1616
Ala Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser
1 5 10 15

<210> 1617
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1617
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atcacttgcc gggcaagtca aaacattagg aattatttaa attggtatca actgaaacca 120
gggaaagccc ctaacctcct gatctatgct acatccaatt tgcaaaatgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctct ccatcagcag tctgcaacct 240
gaagattttg caacttactc ctgtcaacag agttacagta acccttacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 1618
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1618
Asp Ile Leu 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 Asn Ile Arg Asn Tyr
            20   25   30
Leu Asn Trp Tyr Gln Leu Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Thr Ser Asn Leu Gln Asn Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Ser Cys Gln Gln Ser Tyr Ser Asn Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1619
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1619
caaaacatta ggaattat 18

<210> 1620
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1620
Gln Asn Ile Arg Asn Tyr
 1   5

<210> 1621
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1621
gctacatcc   9

<210> 1622
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1622
Ala Thr Ser
 1

<210> 1623
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1623
caacagagtt acagtaaccc ttacact   27

<210> 1624
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1624
Gln Gln Ser Tyr Ser Asn Pro Tyr Thr
 1   5

<210> 1625
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1625
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acctgcactg tctctggtgc ctccatcagt aattactact ggagctggat ccgacagacc 120
ccagggaagg gactggagtg gattggatat ttccattata gtgggagaac caactacaac 180
ccctccctca agagtcgagt ttctatatca gtggacacgt ccaagaatca gttctccctg 240
aacctgaact ttgtgagcgc cgcagacacg gccgtttatt actgtgcgcg ggactccaag 300
gtcattgcag caatcccaag tgctcactgg tatttcgatc cctggggccg tggcacaatg 360
gtcaccgtct cctca   375

<210> 1626
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1626
Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Arg Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Ala Ser Ile Ser Asn Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Phe His Tyr Ser Gly Arg Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Ser Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Asn Leu Asn Phe Val Ser Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Ser Lys Val Ile Ala Ala Ile Pro Ser Ala His Trp Tyr Phe
            100   105   110
Asp Pro Trp Gly Arg Gly Thr Met Val Thr Val Ser Ser
        115   120   125

<210> 1627
<211> 24
<212> DNA

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<220>
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<400> 1627
ggtgcctcca tcagtaatta ctac 24

<210> 1628
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1628
Gly Ala Ser Ile Ser Asn Tyr Tyr
1 5

<210> 1629
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1629
ttccattata gtgggagaac c 21

<210> 1630
<211> 7
<212> PRT
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<220>
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<400> 1630
Phe His Tyr Ser Gly Arg Thr
1 5

<210> 1631
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1631
gcgcgggact ccaaggtcat tgcagcaatc ccaagtgctc actggtattt cgatccc 57

<210> 1632
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1632
Ala Arg Asp Ser Lys Val Ile Ala Ala Ile Pro Ser Ala His Trp Tyr
 1   5   10   15
Phe Asp Pro

<210> 1633
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1633
gacatccaga tgacccagtc tccatcctcc ctgtctgcct ctgtgggaga cagagtcacc 60
atcacttgcc gggcaagtca gaacattaga acctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaattcct gatctatgct gcatccagtt tgcgaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcggcag tctgcaacct 240
gaggactttg caacttacta ctgtcaccag agttacggta ccccgatcac cttcggccaa 300
gggacacgac tggagattaa acga 324

<210> 1634
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1634
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 Asn Ile Arg Thr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Phe Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Arg Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

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

<210> 1635
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1635
cagaacatta gaacctat 18

<210> 1636
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1636
Gln Asn Ile Arg Thr Tyr
1 5

<210> 1637
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1637
gctgcatcc 9

<210> 1638
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1638

Ala Ala Ser
 1

<210> 1639
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1639
caccagagtt acggtacccc gatcacc 27

<210> 1640
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1640
His Gln Ser Tyr Gly Thr Pro Ile Thr
 1 5

<210> 1641
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1641
caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt acttactact ggaattggat ccggcagccc 120
ccagggaagg gactggaatt gattgggtat atctataaga gtgggaaaaa caattataat 180
ccctccctca agagtcgcgt caccataaaa gtagacacgt ccaagaacca gttgtccctg 240
aacctgagtt ctgtgaccgc tgcggacacg gccgtatatt attgtgcgag agagggggag 300
ggactcccta cgggggata ttttgactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1642
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1642
Gln Val Gln Leu Val 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 Thr Tyr
            20   25   30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Leu Ile
        35   40   45
Gly Tyr Ile Tyr Lys Ser Gly Lys Asn Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Lys Val Asp Thr Ser Lys Asn Gln Leu Ser Leu
65   70   75   80
Asn Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Tyr Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 1643
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1643
ggtggctcca tcagtactta ctac   24

<210> 1644
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1644
Gly Gly Ser Ile Ser Thr Tyr Tyr
 1   5

<210> 1645
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1645
atctataaga gtgggaaaaa c 21

<210> 1646
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1646
Ile Tyr Lys Ser Gly Lys Asn
1 5

<210> 1647
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1647
gcgagagagg gggggggact ccctacgggg ggatattttg actac 45

<210> 1648
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1648
Ala Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Tyr
1 5 10 15

<210> 1649
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1649
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca aaacattagg agttatttaa attggtatca actgaaacca 120
ggaaaagccc ctaatctcct gatctatgct gcatccaatt tgcaaagtgg ggtcccatca 180

aggttcagtg gcagtggatc tgggacaggt ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttactc ctgtcaacag agttacagtc acccttacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 1650
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1650
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 Asn Ile Arg Ser Tyr
20 25 30
Leu Asn Trp Tyr Gln Leu Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
35 40 45
Tyr Ala Ala Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Gly Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Ser Cys Gln Gln Ser Tyr Ser His Pro Tyr
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 1651
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1651
caaaacatta ggagttat 18

<210> 1652
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1652
Gln Asn Ile Arg Ser Tyr
1 5

<210> 1653
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1653
gctgcatcc 9

<210> 1654
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1654
Ala Ala Ser
1

<210> 1655
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1655
caacagagtt acagtcaccc ttacact 27

<210> 1656
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1656
Gln Gln Ser Tyr Ser His Pro Tyr Thr
1 5

<210> 1657
<211> 363
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 1657
caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggcgac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agtcactatt ggagctggat ccgtcagtcc 120
ccaggggagg gactggaatg gattggatat atcctttcca gtgggaggac caactacaag 180
tcctccctca ggagccgagt caccatgtca gtagacacgt ccaagaacca gttattcctg 240
gagctgacct ctgtgaccgc tgcggacacg gccgtatatt tctgtgcgag agaggagggg 300
ggactcccca ctgggggcta ctttgacaac tggggccagg gaatcctggt caccgtctcc 360
tca 363

<210> 1658
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1658
Gln Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Ala
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser His
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Ser Pro Gly Glu Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Leu Ser Ser Gly Arg Thr Asn Tyr Lys Ser Ser Leu Arg
    50   55   60
Ser Arg Val Thr Met Ser Val Asp Thr Ser Lys Asn Gln Leu Phe Leu
65   70   75   80
Glu Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Phe Cys Ala
                85   90   95
Arg Glu Glu Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Asn Trp Gly
            100   105   110
Gln Gly Ile Leu Val Thr Val Ser Ser
        115   120

<210> 1659
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1659
ggtggctcca tcagtagtca ctat 24

<210> 1660
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1660
Gly Gly Ser Ile Ser Ser His Tyr
 1   5

<210> 1661
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1661
atcctttcca gtgggaggac c   21

<210> 1662
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1662
Ile Leu Ser Ser Gly Arg Thr
 1   5

<210> 1663
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1663
gcgagagagg agggggggact ccccactggg ggctactttg acaac   45

<210> 1664
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1664
Ala Arg Glu Glu Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Asn
 1   5   10   15

<210> 1665
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1665
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgttggaga cagagtcact 60
atcacttgcc gggcaagtca gaacatttat agttatttaa attggtatca gcagaaacca 120
gggaaagccc ctcatctcct gatctatgct gcatccagtt tgcaaagtgg agtcccttca 180
aggttcagtg gcagtggatc tgacacagat ttcactctca ccatcaccag tctgcagcct 240
gaagattttg caacttactt ctgtcaacag aattacaata tgccttacag ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 1666
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1666
Asp Ile Leu 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 Asn Ile Tyr Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro His Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Asp Thr Asp Phe Thr Leu Thr Ile Thr Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Asn Tyr Asn Met Pro Tyr
                85   90   95
Ser Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1667
<211> 18

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1667
cagaacattt atagttat 18

<210> 1668
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1668
Gln Asn Ile Tyr Ser Tyr
1 5

<210> 1669
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1669
gctgcatcc 9

<210> 1670
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1670
Ala Ala Ser
1

<210> 1671
<211> 27
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1671
caacagaatt acaatatgcc ttacagt 27

<210> 1672
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1672
Gln Gln Asn Tyr Asn Met Pro Tyr Ser
1 5

<210> 1673
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1673
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt acttactact ggaattggat ccggcagccc 120
ccagggaagg gactggaatt gattgggtat atctataaga gtggaagaaa cttctataat 180
ccctccctca agagtcgagt cagcataaca atagacacgt ccacgaacca gttgtcgctg 240
aagttgacct cagtgaccgc tgcggacacg gccgtgtatt actgtgcgag agagggggag 300
ggactcccta cgggggata ctttgactcc tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1674
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1674
Glu Val Gln Leu Val 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 Thr Tyr
20 25 30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Leu Ile
35 40 45
Gly Tyr Ile Tyr Lys Ser Gly Arg Asn Phe Tyr Asn Pro Ser Leu Lys
50 55 60

Ser Arg Val Ser Ile Thr Ile Asp Thr Ser Thr Asn Gln Leu Ser Leu
65 70 75 80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95
Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser Trp Gly
100 105 110
Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 1675
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1675
ggtggctcca tcagtactta ctac 24

<210> 1676
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1676
Gly Gly Ser Ile Ser Thr Tyr Tyr
1 5

<210> 1677
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1677
atctataaga gtggaagaaa c 21

<210> 1678
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1678
Ile Tyr Lys Ser Gly Arg Asn
 1   5

<210> 1679
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1679
gcgagagagg gggggggact ccctacgggg ggatactttg actcc   45

<210> 1680
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1680
Ala Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser
 1   5   10   15

<210> 1681
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1681
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca aaacattagg atttatttaa attggtatca actgaaacca 120
gggaaagccc ctaacctcct gatctatgct acatccaatt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctct ccatcagcag tctgcaacct 240
gaagattttg caacttactc ctgtcaacag agttacagta acccttacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 1682
<211> 108
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1682
Asp Ile Leu 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 Asn Ile Arg Ile Tyr
            20   25   30
Leu Asn Trp Tyr Gln Leu Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Thr Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Ser Cys Gln Gln Ser Tyr Ser Asn Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1683
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1683
caaaacatta ggatttat 18

<210> 1684
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1684
Gln Asn Ile Arg Ile Tyr
 1   5

<210> 1685
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1685

gctacatcc 9

<210> 1686
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1686
Ala Thr Ser
 1

<210> 1687
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1687
caacagagtt acagtaaccc ttacact 27

<210> 1688
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1688
Gln Gln Ser Tyr Ser Asn Pro Tyr Thr
 1   5

<210> 1689
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1689
caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt acttactact ggaattggat ccggcagccc 120
ccagggaagg gactggaatt gattggttat atctataaga gtggaagaaa cttctataat 180
ccctccctca tgagtcgagt caccataaca gtagacacgt ccacgaacca gttgtcgctg 240

aagttgacct cagtgaccgc tgcggacacg gccgtgtatt actgtgcgag agaggggggg 300
ggactcccta cgggggggata ctttgactcc tggggccagg gaatcctggt caccgtctcc 360
tca 363

<210> 1690
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1690
Gln Val Gln Leu Val 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 Thr Tyr
20 25 30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Leu Ile
35 40 45
Gly Tyr Ile Tyr Lys Ser Gly Arg Asn Phe Tyr Asn Pro Ser Leu Met
50 55 60
Ser Arg Val Thr Ile Thr Val Asp Thr Ser Thr Asn Gln Leu Ser Leu
65 70 75 80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95
Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser Trp Gly
100 105 110
Gln Gly Ile Leu Val Thr Val Ser Ser
115 120

<210> 1691
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1691
ggtggctcca tcagtactta ctac 24

<210> 1692
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1692
Gly Gly Ser Ile Ser Thr Tyr Tyr

1 5

<210> 1693
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1693
atctataaga gtggaagaaa c 21

<210> 1694
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1694
Ile Tyr Lys Ser Gly Arg Asn
1 5

<210> 1695
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1695
gcgagagagg gggggggact ccctacgggg ggatactttg actcc 45

<210> 1696
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1696
Ala Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser
1 5 10 15

<210> 1697

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

<220>
<223> synthetic

<400> 1697
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca aaacattagg aattatttaa attggtatca actgaaacca 120
gggaaagccc ctaacctcct gatctatgct acatccaatt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctct ccatcagcag tcttcaacct 240
gaagattttg caacttactc ctgtcaacag agttacagta acccttacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 1698
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1698
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 Asn Ile Arg Asn Tyr
            20   25   30
Leu Asn Trp Tyr Gln Leu Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Thr Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Ser Cys Gln Gln Ser Tyr Ser Asn Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1699
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1699
caaaacatta ggaattat 18

<210> 1700

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

<220>
<223> synthetic

<400> 1700
Gln Asn Ile Arg Asn Tyr
 1   5

<210> 1701
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1701
gctacatcc   9

<210> 1702
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1702
Ala Thr Ser
 1

<210> 1703
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1703
caacagagtt acagtaaccc ttacact   27

<210> 1704
<211> 9
<212> PRT
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<220>
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<400> 1704
Gln Gln Ser Tyr Ser Asn Pro Tyr Thr
 1   5

<210> 1705
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1705
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt acttactact ggaattggat ccggcagccc 120
ccagggaagg gactggaatt gattgggtat atctataaga gtggaagaaa cttctataat 180
ccctccctca agagtcgagt catcatagca gtagacacgt ccacgaacca gttgtcgctg 240
aagttgacct cagtgaccgc tgcggacacg gccgtgtatt actgtgcgag agagggggag 300
ggactcccta cgggggata ctttgactcc tggggccagg gaaccctggt caccgtctcc 360
tca   363

<210> 1706
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1706
Glu Val Gln Leu Val 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 Thr Tyr
            20   25   30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Leu Ile
        35   40   45
Gly Tyr Ile Tyr Lys Ser Gly Arg Asn Phe Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Ile Ile Ala Val Asp Thr Ser Thr Asn Gln Leu Ser Leu
65   70   75   80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 1707
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1707
ggtggctcca tcagtactta ctac 24

<210> 1708
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1708
Gly Gly Ser Ile Ser Thr Tyr Tyr
1 5

<210> 1709
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1709
atctataaga gtggaagaaa c 21

<210> 1710
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1710
Ile Tyr Lys Ser Gly Arg Asn
1 5

<210> 1711
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1711
gcgagagagg gggggggact ccctacgggg ggatactttg actcc 45

<210> 1712
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1712
Ala Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser
1 5 10 15

<210> 1713
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1713
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca aaacattagg aattatttaa attggtatca actgaaacca 120
gggaaagccc ctaacctcct gatctatgct acatccaatt tgcaaaatgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctct ccatcagcag tctgcaacct 240
gaagattttg caacttactc ctgtcaacag agttacagta acccttacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 1714
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1714
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 Asn Ile Arg Asn Tyr
20 25 30
Leu Asn Trp Tyr Gln Leu Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
35 40 45
Tyr Ala Thr Ser Asn Leu Gln Asn Gly Val Pro Ser Arg Phe Ser Gly

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    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Ser Cys Gln Gln Ser Tyr Ser Asn Pro Tyr
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 1715
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1715
caaaacatta ggaattat 18

<210> 1716
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1716
Gln Asn Ile Arg Asn Tyr
 1   5

<210> 1717
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1717
gctacatcc 9

<210> 1718
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1718
Ala Thr Ser
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<210> 1719
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1719
caacagagtt acagtaaccc ttacact 27

<210> 1720
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1720
Gln Gln Ser Tyr Ser Asn Pro Tyr Thr
 1   5

<210> 1721
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1721
caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agtcactact ggagctggat ccggcagccc 120
ccagggaagg gactggaatg gattgggtat atcttttcca gtgggaggac caactacaag 180
tcctccctca ggagtcgagt caccatgtca gtagacacgt ccaagaacca gttatccctg 240
aagctgacct ctgtgaccgc tgcggacacg gccgtatatt actgtgcgag agagggggag 300
ggactcccta ctgggggcta ctttgactac tggggccagg gaaccacggt caccgtctcc 360
tca 363

<210> 1722
<211> 121
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1722
Gln Val Gln Leu Val 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 His
            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 Phe Ser Ser Gly Arg Thr Asn Tyr Lys Ser Ser Leu Arg
    50   55   60
Ser Arg Val Thr Met Ser Val Asp Thr Ser Lys Asn Gln Leu Ser Leu
65   70   75   80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Tyr Trp Gly
            100   105   110
Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 1723
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1723
ggtggctcca tcagtagtca ctac   24

<210> 1724
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1724
Gly Gly Ser Ile Ser Ser His Tyr
 1   5

<210> 1725
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1725
atcttttcca gtgggaggac c 21

<210> 1726
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1726
Ile Phe Ser Ser Gly Arg Thr
1 5

<210> 1727
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1727
gcgagagagg gggggggact ccctactggg ggctactttg actac 45

<210> 1728
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1728
Ala Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Tyr
1 5 10 15

<210> 1729
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1729
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcact 60
atcacttgcc gggcaagtca gaacatttat agttatttaa attggtatca gcagaaacca 120

gggaaagccc ctaatctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccttca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcagcct 240
gaagattttg caacttactt ctgtcaacag aattacaata tgccttacag ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 1730
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1730
Asp Ile Leu 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 Asn Ile Tyr Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Asn Tyr Asn Met Pro Tyr
                85   90   95
Ser Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1731
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1731
cagaacattt atagttat 18

<210> 1732
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1732
Gln Asn Ile Tyr Ser Tyr
 1   5

<210> 1733
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1733
gctgcatcc 9

<210> 1734
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1734
Ala Ala Ser
1

<210> 1735
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1735
caacagaatt acaatatgcc ttacagt 27

<210> 1736
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1736
Gln Gln Asn Tyr Asn Met Pro Tyr Ser
1 5

<210> 1737
<211> 363

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1737
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagc acttattatt ggaattggat ccggcagccc 120
ccagggaagg gactggaatt gattgggtat atctataaga gtggaagaaa cttctataat 180
ccctccctca agagtcgagt caccatagca gtagacacgt ccacgaacca gttgtcgctg 240
aagttgacct cagtgaccgc tgcggacacg gccgtgtatt actgtgcgag agagggggg 300
ggactcccta cgggggata ctttgactcc tggggccagg gaaccacggt caccgtctcc 360
tca 363

<210> 1738
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1738
Glu Val Gln Leu Val 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 Thr Tyr
            20   25   30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Leu Ile
        35   40   45
Gly Tyr Ile Tyr Lys Ser Gly Arg Asn Phe Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ala Val Asp Thr Ser Thr Asn Gln Leu Ser Leu
65   70   75   80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser Trp Gly
            100   105   110
Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 1739
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1739
ggtggctcca tcagcactta ttat 24

<210> 1740
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1740
Gly Gly Ser Ile Ser Thr Tyr Tyr
 1   5

<210> 1741
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1741
atctataaga gtggaagaaa c   21

<210> 1742
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1742
Ile Tyr Lys Ser Gly Arg Asn
 1   5

<210> 1743
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1743
gcgagagagg gggggggact ccctacgggg ggatactttg actcc   45

<210> 1744
<211> 15
<212> PRT

<213> Artificial Sequence

<220>
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<400> 1744
Ala Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser
 1   5   10   15

<210> 1745
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1745
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atcacttgcc gggcaagtca aaacattagg aattatttaa attggtatca actgaaacca 120
gggaaagccc ctaacctcct gatctatgct acatccaatt tgcaaagtga ggtcccatca 180
agattcagtg gcagtggatc tgggacagat ttcactctct ccatcagcag tctgcaacct 240
gaagattttg caacttactc ctgtcaacag agttacagta acccttacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 1746
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1746
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 Asn Ile Arg Asn Tyr
            20   25   30
Leu Asn Trp Tyr Gln Leu Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Thr Ser Asn Leu Gln Ser Glu Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Ser Cys Gln Gln Ser Tyr Ser Asn Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1747

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

<220>
<223> synthetic

<400> 1747
caaaacatta ggaattat 18

<210> 1748
<211> 6
<212> PRT
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<220>
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<400> 1748
Gln Asn Ile Arg Asn Tyr
1 5

<210> 1749
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1749
gctacatcc 9

<210> 1750
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1750
Ala Thr Ser
1

<210> 1751
<211> 27
<212> DNA
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<220>
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<400> 1751
caacagagtt acagtaaccc ttacact 27

<210> 1752
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1752
Gln Gln Ser Tyr Ser Asn Pro Tyr Thr
1 5

<210> 1753
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1753
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt acttactact ggaattggat ccggcaggcc 120
ccagggaagg gactggaatt gattgggtat atctataaga gtggaagaaa gttctataat 180
ccctccctca agagtcgagg caccatagca gtagacacgt ccacgaacca gttgtcgctg 240
aagttgacct cagtgaccgc tgcggacacg gccgtgtatt actgtgcgag agagggggag 300
ggactcccta cgggggata ctttgactcc tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1754
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1754
Glu Val Gln Leu Val 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 Thr Tyr
20 25 30
Tyr Trp Asn Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Leu Ile
35 40 45
Gly Tyr Ile Tyr Lys Ser Gly Arg Lys Phe Tyr Asn Pro Ser Leu Lys

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    50                  55                  60
Ser Arg Gly Thr Ile Ala Val Asp Thr Ser Thr Asn Gln Leu Ser Leu
65                  70                  75                  80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 1755
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1755
ggtggctcca tcagtactta ctac 24

<210> 1756
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1756
Gly Gly Ser Ile Ser Thr Tyr Tyr
 1   5

<210> 1757
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1757
atctataaga gtggaagaaa g 21

<210> 1758
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1758
Ile Tyr Lys Ser Gly Arg Lys
 1   5

<210> 1759
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1759
gcgagagagg gggggggact ccctacgggg ggatactttg actcc   45

<210> 1760
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1760
Ala Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser
 1   5   10   15

<210> 1761
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1761
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atcacttgcc gggcaagtca aaacattagg aattatttaa attggtatca actgaaacca 120
gggaaagccc ctaacctcct gatctatgct acatccaatt tgcaaagtgg ggtcccatca 180
agattcagtg gcagtggatc tgggacagat ttcactctct ccatcagcag tctgcaacct 240
gaagattttg caacttactg ctgtcaacag agttacagta acccttacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 1762
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1762
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 Asn Ile Arg Asn Tyr
            20   25   30
Leu Asn Trp Tyr Gln Leu Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Thr Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Cys Cys Gln Gln Ser Tyr Ser Asn Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1763
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1763
caaaacatta ggaattat   18

<210> 1764
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1764
Gln Asn Ile Arg Asn Tyr
 1   5

<210> 1765
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1765
gctacatcc 9

<210> 1766
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1766
Ala Thr Ser
1

<210> 1767
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1767
caacagagtt acagtaaccc ttacact 27

<210> 1768
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1768
Gln Gln Ser Tyr Ser Asn Pro Tyr Thr
1 5

<210> 1769
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1769
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ccaggggagg gcctggaatg gattggatat atcttctcta ctaggaggac caactacaag 180

tcctccctca ggagtcgagt caccatgtca gtagacacgt ccaagaacca gttatccctg 240
aagctgacct ctgtgaccgc tgcggacacg gccgtatatt actgtgcgag agaggagggg 300
ggactcccta ctgggggcta ttttgactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1770
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1770

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

<210> 1771
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1771
ggtgtctcca tcagtagtca ctac 24

<210> 1772
<211> 8
<212> PRT
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<220>
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<400> 1772

Gly Val Ser Ile Ser Ser His Tyr
1 5

<210> 1773
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1773
atcttctcta ctaggaggac c 21

<210> 1774
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1774
Ile Phe Ser Thr Arg Arg Thr
1 5

<210> 1775
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1775
gcgagagagg agggggggact ccctactggg ggctattttg actac 45

<210> 1776
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1776
Ala Arg Glu Glu Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Tyr
1 5 10 15

<210> 1777
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1777
gacatccaga tgacccagtc tccatcctcc ctgtctgcgt ctgtaggaga cagagtcact 60
atcacttgcc ggccaagtca gaacatttat agttatttaa attggtatca gcagaaacca 120
gggaaagccc ctaatctcct gatctatact gcatccagtt tgcaaagcgg ggtctcttca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcaccag tctgcagcct 240
gaagattttg caacttactt ctgtcaacag aattacaata tgccttacag ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 1778
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1778
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 Pro Ser Gln Asn Ile Tyr Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Thr Ala Ser Ser Leu Gln Ser Gly Val Ser Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Thr Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Asn Tyr Asn Met Pro Tyr
                85   90   95
Ser Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1779
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1779
cagaacattt atagttat 18

<210> 1780
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1780
Gln Asn Ile Tyr Ser Tyr
 1   5

<210> 1781
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1781
actgcatcc 9

<210> 1782
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1782
Thr Ala Ser
 1

<210> 1783
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1783
caacagaatt acaatatgcc ttacagt 27

<210> 1784
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1784
Gln Gln Asn Tyr Asn Met Pro Tyr Ser
 1   5

<210> 1785
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1785
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagc agtggtggtt actactggag ctggatccgt 120
cagcacccag ggaagggcct ggagtggatt gggtacatct attacagtgg gaacacctac 180
tacaacccgt ccctcaagag tcgagttacc atatcaatag acacgtctaa gaaccagttc 240
tccctgaagc tgaactctgt gactgccgcg gacacggccg tctattactg tgcgcgagga 300
gttataggaa ctatgattat agcagcagct atccctttg actactgggg ccagggaacc 360
atggtcaccg tctcctca   378

<210> 1786
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1786
Glu Val Gln Leu Val 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 Gly
            20   25   30
Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
        35   40   45
Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Asn Thr Tyr Tyr Asn Pro Ser
    50   55   60
Leu Lys Ser Arg Val Thr Ile Ser Ile Asp Thr Ser Lys Asn Gln Phe
65   70   75   80
Ser Leu Lys Leu Asn Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                85   90   95
Cys Ala Arg Gly Val Ile Gly Thr Met Ile Ile Ala Ala Ala Ile Pro
            100   105   110
Phe Asp Tyr Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120   125

<210> 1787
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1787
ggtggctcca tcagcagtgg tggttactac 30

<210> 1788
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1788
Gly Gly Ser Ile Ser Ser Gly Gly Tyr Tyr
1 5 10

<210> 1789
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1789
atctattaca gtgggaacac c 21

<210> 1790
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1790
Ile Tyr Tyr Ser Gly Asn Thr
1 5

<210> 1791
<211> 54
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 1791
gcgcgaggag ttataggaac tatgattata gcagcagcta tccctttga ctac 54

<210> 1792
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1792
Ala Arg Gly Val Ile Gly Thr Met Ile Ile Ala Ala Ala Ile Pro Phe
 1 5 10 15
Asp Tyr

<210> 1793
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1793
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca aaacattagg aattatttaa attggtatca actgaaacca 120
gggaaagccc ctaacctcct gatctatgct acatccaatt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctct ccatcagcag tctgcagcct 240
gcagattttg caacttactc ctgtcagcag agttacagta acccttacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 1794
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1794
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 Asn Ile Arg Asn Tyr
 20 25 30

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Leu Asn Trp Tyr Gln Leu Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35                  40                  45
Tyr Ala Thr Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Ala Asp Phe Ala Thr Tyr Ser Cys Gln Gln Ser Tyr Ser Asn Pro Tyr
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 1795
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1795
caaaacatta ggaattat 18

<210> 1796
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1796
Gln Asn Ile Arg Asn Tyr
 1   5

<210> 1797
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1797
gctacatcc 9

<210> 1798
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1798
Ala Thr Ser
 1

<210> 1799
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1799
cagcagagtt acagtaaccc ttacact 27

<210> 1800
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1800
Gln Gln Ser Tyr Ser Asn Pro Tyr Thr
 1   5

<210> 1801
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1801
caggtgcagc tggtggagtc gggcccagga ctggtgaggc cttcggagac cctgtccctc 60
acctgcactg tctctggtgc ctccatcagt aattactact ggagctggat ccgacagacc 120
ccagggaagg gactggagtg gattggatat ttccattata gtgggagaac caactacaac 180
ccctccctca agagtcgagt ttctatatca gtggacacgt ccaagaatca gttctccctg 240
aacctgaact ttgtgagcgc cgcagacacg gccgtttatt actgtgcgcg ggactccaag 300
gtcattgcag caatcccaag tgctcactgg tatttcgatc cctggggccg tggcacactg 360
gtcaccgtct cctca 375

<210> 1802
<211> 125
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 1802
Gln Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Arg Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Ala Ser Ile Ser Asn Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Phe His Tyr Ser Gly Arg Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Ser Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Asn Leu Asn Phe Val Ser Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Ser Lys Val Ile Ala Ala Ile Pro Ser Ala His Trp Tyr Phe
            100   105   110
Asp Pro Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 1803
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1803
ggtgcctcca tcagtaatta ctac   24

<210> 1804
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1804
Gly Ala Ser Ile Ser Asn Tyr Tyr
 1   5

<210> 1805
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1805
ttccattata gtgggagaac c 21

<210> 1806
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1806
Phe His Tyr Ser Gly Arg Thr
1 5

<210> 1807
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1807
gcgcgggact ccaaggtcat tgcagcaatc ccaagtgctc actggtattt cgatccc 57

<210> 1808
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1808
Ala Arg Asp Ser Lys Val Ile Ala Ala Ile Pro Ser Ala His Trp Tyr
1 5 10 15
Phe Asp Pro

<210> 1809
<211> 324
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1809
gacatccaga tgacccagtc tccatcctcc ctgtctgcct ctgtgggaga cagagtcacc 60
atcacttgcc gggcaagtca gaacattaga acctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaattcct gatctatgct gcatccagtt tgcgaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcggcag tctgcaacct 240
gaggactttg caacttacta ctgtcaccag agttacggta ccccgatcac cttcggccaa 300
gggacacgac tggagattaa acga 324

<210> 1810
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1810
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 Asn Ile Arg Thr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Phe Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Arg Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Gly Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys His Gln Ser Tyr Gly Thr Pro Ile
                85   90   95
Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
            100   105

<210> 1811
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1811
cagaacatta gaacctat 18

<210> 1812
<211> 6
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1812
Gln Asn Ile Arg Thr Tyr
 1   5

<210> 1813
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1813
gctgcatcc   9

<210> 1814
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1814
Ala Ala Ser
 1

<210> 1815
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1815
caccagagtt acggtacccc gatcacc   27

<210> 1816
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1816
His Gln Ser Tyr Gly Thr Pro Ile Thr

 1   5

<210> 1817
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1817
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agtcactatt ggagctggat ccgtcagccc 120
ccaggggagg gactggaatg gattggatat atcctttcca gtgggaggac caactacaag 180
tcctccctca ggacccgagt caccatgtca gtagacacgt ccaagaacca gttattcctg 240
gagctgacct ctgtgaccgc tgcggacacg gccgtatatt tctgtgcgag agaggagggg 300
ggactcccca ctgggggcta ctttgacaac tggggccagg gaatcctggt caccgtctcc 360
tca   363

<210> 1818
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1818
Glu Val Gln Leu Val 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 His
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Glu Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Leu Ser Ser Gly Arg Thr Asn Tyr Lys Ser Ser Leu Arg
    50   55   60
Thr Arg Val Thr Met Ser Val Asp Thr Ser Lys Asn Gln Leu Phe Leu
65   70   75   80
Glu Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Phe Cys Ala
                85   90   95
Arg Glu Glu Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Asn Trp Gly
            100   105   110
Gln Gly Ile Leu Val Thr Val Ser Ser
        115   120

<210> 1819
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1819
ggtggctcca tcagtagtca ctat 24

<210> 1820
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1820
Gly Gly Ser Ile Ser Ser His Tyr
1 5

<210> 1821
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1821
atcctttcca gtgggaggac c 21

<210> 1822
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1822
Ile Leu Ser Ser Gly Arg Thr
1 5

<210> 1823
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1823

gcgagagagg agggggact ccccactggg ggctactttg acaac 45

<210> 1824
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1824
Ala Arg Glu Glu Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Asn
 1 5 10 15

<210> 1825
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1825
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcact 60
atcacttgcc gggcaagtca gaacatttat agttatttaa attggtatca gcagaaacca 120
gggaaagccc ctcatctcct gatctatgct gcatccagtt tgcaaagtgg agtcccttca 180
aggttcagtg gcagtggatc tgacacagat ttcactctca ccatcaccag tctgcagcct 240
gaagattttg ctacttactt ctgtcaacag aattacaata tgccttacag ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 1826
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1826
Asp Ile Leu 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 Asn Ile Tyr Ser Tyr
 20 25 30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro His Leu Leu Ile
 35 40 45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
Ser Gly Ser Asp Thr Asp Phe Thr Leu Thr Ile Thr Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Asn Tyr Asn Met Pro Tyr
 85 90 95

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

<210> 1827
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1827
cagaacattt atagttat 18

<210> 1828
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1828
Gln Asn Ile Tyr Ser Tyr
1 5

<210> 1829
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1829
gctgcatcc 9

<210> 1830
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1830
Ala Ala Ser
1

<210> 1831
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1831
caacagaatt acaatatgcc ttacagt 27

<210> 1832
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1832
Gln Gln Asn Tyr Asn Met Pro Tyr Ser
1 5

<210> 1833
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1833
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggagggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt agttatgaaa tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtttcatac attagtagta gtggtagtac catatactac 180
gcagactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctcactgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgttt attactgtgc gaggaccggg 300
tatagcagca gccgtccatt tgactactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 1834
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1834
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20                  25                  30
Glu Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Tyr Ile Ser Ser Ser Gly Ser Thr 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 Thr Gly Tyr Ser Ser Ser Arg Pro Phe Asp Tyr Trp Gly Gln
            100                 105                 110
Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 1835
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1835
ggattcacct tcagtagtta tgaa 24

<210> 1836
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1836
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Gly Phe Thr Phe Ser Ser Tyr Glu
 1               5
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<210> 1837
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1837
attagtagta gtggtagtac cata 24

<210> 1838

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

<220>
<223> synthetic

<400> 1838
Ile Ser Ser Ser Gly Ser Thr Ile
 1   5

<210> 1839
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1839
gcgaggaccg ggtatagcag cagccgtcca tttgactac   39

<210> 1840
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1840
Ala Arg Thr Gly Tyr Ser Ser Ser Arg Pro Phe Asp Tyr
 1   5   10

<210> 1841
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1841
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaacctcct gatctatgct acatccaatt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacag tatgataatc tccctccgct cactttcggc 300
ggagggacca aggtggagat caaacga   327

<210> 1842
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1842
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 Ser Asn Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Thr Ser Asn Leu Gln Ser 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 Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asn Leu Pro Pro
                85   90   95
Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1843
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1843
caggacatta gcaactat 18

<210> 1844
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1844
Gln Asp Ile Ser Asn Tyr
 1   5

<210> 1845
<211> 9
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 1845
gctacatcc 9

<210> 1846
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1846
Ala Thr Ser
 1

<210> 1847
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1847
caacagtatg ataatctccc tccgctcact 30

<210> 1848
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1848
Gln Gln Tyr Asp Asn Leu Pro Pro Leu Thr
 1   5   10

<210> 1849
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1849
caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tcgctggtgg ctccatcagt acttactact ggaattggat ccggcagccc 120
ccagggaagg gactggaatt gattgggtat atctataaga gtggaagaaa cttctataat 180
ccctccctca agagtcgagt caccatagca gtagacacgt ccacgaacca gttgtcgctg 240
aagttgacct cagtgaccgc tgcggacacg gccgtgtatt attgtgtgag agagggggag 300
ggactcccta cgggggggata ctttgactcc tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1850
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1850
Gln Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ala Gly Gly Ser Ile Ser Thr Tyr
            20   25   30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Leu Ile
        35   40   45
Gly Tyr Ile Tyr Lys Ser Gly Arg Asn Phe Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ala Val Asp Thr Ser Thr Asn Gln Leu Ser Leu
65   70   75   80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Val
                85   90   95
Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 1851
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1851
ggtggctcca tcagtactta ctac 24

<210> 1852
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1852
Gly Gly Ser Ile Ser Thr Tyr Tyr
 1   5

<210> 1853
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1853
atctataaga gtggaagaaa c   21

<210> 1854
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1854
Ile Tyr Lys Ser Gly Arg Asn
 1   5

<210> 1855
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1855
gtgagagagg gggggggact ccctacgggg ggatactttg actcc   45

<210> 1856
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1856
Val Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser
 1   5   10   15

<210> 1857
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1857
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca aaacattagg aattatttaa attggtatca actgaaacca 120
gggaaagccc ctaacctcct gatctatgct acatccaatt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctct ccatcagcag tctgcaacct 240
gaagattttg caacttactc ctgtcaacag agttacagta acccttacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 1858
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1858
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 Asn Ile Arg Asn Tyr
            20   25   30
Leu Asn Trp Tyr Gln Leu Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Thr Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Ser Cys Gln Gln Ser Tyr Ser Asn Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1859
<211> 18
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1859
caaaacatta ggaattat 18

<210> 1860
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1860
Gln Asn Ile Arg Asn Tyr
1 5

<210> 1861
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1861
gctacatcc 9

<210> 1862
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1862
Ala Thr Ser
1

<210> 1863
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1863
caacagagtt acagtaaccc ttacact 27

<210> 1864
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1864
Gln Gln Ser Tyr Ser Asn Pro Tyr Thr
 1   5

<210> 1865
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1865
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt acttactact ggaattggat ccggcagtcc 120
ccagggaagg gactggaatt gattgggtat atctataaga gtgggaaaaa caattataat 180
ccctccctca agagtcgcgt caccataaaa gtagacacgt ccaagaacca gttgtccctg 240
aacctgaggt ctgtgaccgc tgcggacacg gccgtgtatt attgtgcgag agagggggag 300
ggactcccta cgggggata ttttgactac tggggccagg gaaccccggt caccgtctcc 360
tca   363

<210> 1866
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1866
Glu Val Gln Leu Val 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 Thr Tyr
            20   25   30
Tyr Trp Asn Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Leu Ile
        35   40   45
Gly Tyr Ile Tyr Lys Ser Gly Lys Asn Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Lys Val Asp Thr Ser Lys Asn Gln Leu Ser Leu
65   70   75   80
Asn Leu Arg Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95

Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Tyr Trp Gly
100 105 110
Gln Gly Thr Pro Val Thr Val Ser Ser
115 120

<210> 1867
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1867
ggtggctcca tcagtactta ctac 24

<210> 1868
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1868
Gly Gly Ser Ile Ser Thr Tyr Tyr
1 5

<210> 1869
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1869
atctataaga gtgggaaaaa c 21

<210> 1870
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1870
Ile Tyr Lys Ser Gly Lys Asn
1 5

<210> 1871
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1871
gcgagagagg gggggggact ccctacgggg ggatattttg actac 45

<210> 1872
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1872
Ala Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Tyr
1 5 10 15

<210> 1873
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1873
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca aaacattagg agttatttaa attggtatca actgaaacca 120
ggaaaagccc ctaatctcct gatctatgct gcatccaatt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttactc ctgtcaacag agttacagtc acccttacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 1874
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1874
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly

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 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asn Ile Arg Ser Tyr
            20                  25                  30
Leu Asn Trp Tyr Gln Leu Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Ser Cys Gln Gln Ser Tyr Ser His Pro Tyr
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 1875
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1875
caaaacatta ggagttat 18

<210> 1876
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1876
Gln Asn Ile Arg Ser Tyr
 1   5

<210> 1877
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1877
gctgcatcc 9

<210> 1878
<211> 3

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1878
Ala Ala Ser
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<210> 1879
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1879
caacagagtt acagtcaccc ttacact 27

<210> 1880
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1880
Gln Gln Ser Tyr Ser His Pro Tyr Thr
 1   5

<210> 1881
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1881
gaggtgcagc tggtggagtc gggcccagga ctggtgaggc cttcggagac cctgtccctc 60
acctgcactg tctctggtgc ctccatcagt aattactact ggagctggat ccgacagacc 120
ccagggaagg gactggagtg gattggatat ttccattata gtgggagaac caactacaac 180
ccctccctca agagtcgagt ttctatatca gtggacacgt ccaagaatca gttctccctg 240
aacctgaact ttgtgagcgc cgcagacacg gccgtttatt actgtgcgcg ggactccaag 300
gtcattgcag caatcccaag tgctcactgg tatttcgatc cctggggccg tggcacactg 360
gtcaccgtct cctca 375

<210> 1882
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1882
Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Arg Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Ala Ser Ile Ser Asn Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Phe His Tyr Ser Gly Arg Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Ser Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Asn Leu Asn Phe Val Ser Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Ser Lys Val Ile Ala Ala Ile Pro Ser Ala His Trp Tyr Phe
            100   105   110
Asp Pro Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 1883
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1883
ggtgcctcca tcagtaatta ctac   24

<210> 1884
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1884
Gly Ala Ser Ile Ser Asn Tyr Tyr
 1   5

<210> 1885

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

<220>
<223> synthetic

<400> 1885
ttccattata gtgggagaac c 21

<210> 1886
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1886
Phe His Tyr Ser Gly Arg Thr
1 5

<210> 1887
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1887
gcgcgggact ccaaggtcat tgcagcaatc ccaagtgctc actggtattt cgatccc 57

<210> 1888
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1888
Ala Arg Asp Ser Lys Val Ile Ala Ala Ile Pro Ser Ala His Trp Tyr
1 5 10 15
Phe Asp Pro

<210> 1889
<211> 324
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 1889
gacatccaga tgacccagtc tccatcctcc ctgtctgcct ctgtgggaga cagagtcacc 60
atcacttgcc gggcaagtca gaacattaga acctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaattcct gatctatgct gcatccagtt tgcgaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcggcag tctgcaacct 240
gaggactttg caacttacta ctgtcaccag agttacggta ccccgatcac cttcggccaa 300
gggaccaaac tggagatcaa acga 324

<210> 1890
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1890
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 Asn Ile Arg Thr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Phe Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Arg Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Gly Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys His Gln Ser Tyr Gly Thr Pro Ile
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
            100   105

<210> 1891
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1891
cagaacatta gaacctat 18

<210> 1892
<211> 6
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 1892
Gln Asn Ile Arg Thr Tyr
 1   5

<210> 1893
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1893
gctgcatcc   9

<210> 1894
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1894
Ala Ala Ser
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<210> 1895
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1895
caccagagtt acggtacccc gatcacc   27

<210> 1896
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1896
His Gln Ser Tyr Gly Thr Pro Ile Thr
 1   5

<210> 1897
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1897
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt acttactact ggaattggat ccggcaggcc 120
ccagggaagg gactggaatt gattgggtat atctataaga gtggaagaaa gttctataat 180
ccctccctca agagtcgagg caccatagca gtagacacgt ccacgaacca gttgtcgctg 240
aagttgacct cagtgaccgc tgcggacacg gccgtgtatt actgtgcgag agagggggag 300
ggactcccta cgggggata ctttgactcc tggggccagg gaaccctggt caccgtctcc 360
tca   363

<210> 1898
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1898
Glu Val Gln Leu Val 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 Thr Tyr
            20   25   30
Tyr Trp Asn Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Leu Ile
        35   40   45
Gly Tyr Ile Tyr Lys Ser Gly Arg Lys Phe Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Gly Thr Ile Ala Val Asp Thr Ser Thr Asn Gln Leu Ser Leu
65   70   75   80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 1899
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1899
ggtggctcca tcagtactta ctac 24

<210> 1900
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1900
Gly Gly Ser Ile Ser Thr Tyr Tyr
1 5

<210> 1901
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1901
atctataaga gtggaagaaa g 21

<210> 1902
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1902
Ile Tyr Lys Ser Gly Arg Lys
1 5

<210> 1903
<211> 45
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 1903
gcgagagagg gggggggact ccctacgggg ggatactttg actcc 45

<210> 1904
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1904
Ala Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser
 1 5 10 15

<210> 1905
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1905
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca aaacattagg aattatttaa attggtatca actgaaacca 120
gggaaagccc ctaacctcct gatctatgct acatccaatt tgcaaagtgg ggtcccatca 180
agattcagtg gcagtggatc tgggacagat ttcactctct ccatcagcag tctgcaacct 240
gaagattttg caacttactg ctgtcaacag agttacagta acccttacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 1906
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1906
Asp Ile Leu 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 Asn Ile Arg Asn Tyr
 20 25 30
Leu Asn Trp Tyr Gln Leu Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
 35 40 45
Tyr Ala Thr Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Ser Ser Leu Gln Pro

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

<210> 1907
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1907
caaaacatta ggaattat 18

<210> 1908
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1908
Gln Asn Ile Arg Asn Tyr
1 5

<210> 1909
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1909
gctacatcc 9

<210> 1910
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1910
Ala Thr Ser

1

<210> 1911
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1911
caacagagtt acagtaaccc ttacact 27

<210> 1912
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1912
Gln Gln Ser Tyr Ser Asn Pro Tyr Thr
1 5

<210> 1913
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1913
caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagc acttattatt ggaattggat ccggcagccc 120
ccagggaagg gactggaatt gattgggtat atctataaga gtggaagaaa cttctataat 180
ccctccctca agagtcgagt caccatagca gtagacacgt ccacgaacca gttgtcgctg 240
aagttgacct cagtgaccgc tgcggacacg gccgtgtatt actgtgcgag agaggggggg 300
ggactcccta cgggggata ctttgactcc tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 1914
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1914
Gln Val Gln Leu Val 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 Thr Tyr
            20   25   30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Leu Ile
        35   40   45
Gly Tyr Ile Tyr Lys Ser Gly Arg Asn Phe Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ala Val Asp Thr Ser Thr Asn Gln Leu Ser Leu
65   70   75   80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 1915
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1915
ggtggctcca tcagcactta ttat   24

<210> 1916
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1916
Gly Gly Ser Ile Ser Thr Tyr Tyr
 1   5

<210> 1917
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1917

atctataaga gtggaagaaa c 21

<210> 1918
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1918
Ile Tyr Lys Ser Gly Arg Asn
1 5

<210> 1919
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1919
gcgagagagg gggggggact ccctacgggg ggatactttg actcc 45

<210> 1920
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1920
Ala Arg Glu Gly Gly Gly Leu Pro Thr Gly Gly Tyr Phe Asp Ser
1 5 10 15

<210> 1921
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1921
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca aaacattagg aattatttaa attggtatca actgaaacca 120
gggaaagccc ctaacctcct gatctatgct acatccaatt tgcaaagtga ggtcccatca 180
agattcagtg gcagtggatc tgggacagat ttcactctct ccatcagcag tctgcaacct 240

gaagattttg caacttactc ctgtcaacag agttacagta acccttacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 1922
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1922
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 Asn Ile Arg Asn Tyr
20 25 30
Leu Asn Trp Tyr Gln Leu Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
35 40 45
Tyr Ala Thr Ser Asn Leu Gln Ser Glu Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Ser Cys Gln Gln Ser Tyr Ser Asn Pro Tyr
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 1923
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<400> 1923
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<210> 1924
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<400> 1924
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<210> 1925
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<400> 1925
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<210> 1926
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<400> 1926
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<210> 1927
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<400> 1927
caacagagtt acagtaaccc ttacact 27

<210> 1928
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<400> 1928
Gln Gln Ser Tyr Ser Asn Pro Tyr Thr
1 5

<210> 1929
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<212> DNA
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<220>
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<400> 1929
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgctg tcaacggtgg gtccttcaat tattaccact ggacctggat ccgccagccc 120
ccagggaagg ggctggaatg gattggggaa atcaatcata ctggaagcac caactataat 180
ccgtccctca agagtcgagt caccatatca gttgacacgt ccaagaacca gttctccctg 240
aggctgaggt ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgag aggccctact 300
tcggtgacta cggactacta cggtatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 1930
<211> 122
<212> PRT
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<220>
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<400> 1930
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Asn Gly Gly Ser Phe Asn Tyr Tyr
            20   25   30
His Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asn His Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Arg Leu Arg Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Pro Thr Ser Val Thr Thr Asp Tyr Tyr Gly Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 1931
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<400> 1931
ggtgggtcct tcaattatta ccac 24

<210> 1932

<211> 8
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<400> 1932
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<210> 1933
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<220>
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<400> 1933
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<210> 1934
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<400> 1934
Ile Asn His Thr Gly Ser Thr
 1   5

<210> 1935
<211> 48
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<400> 1935
gcgagaggcc ctacttcggt gactacggac tactacggta tggacgtc   48

<210> 1936
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<400> 1936
Ala Arg Gly Pro Thr Ser Val Thr Thr Asp Tyr Tyr Gly Met Asp Val
 1   5   10   15

<210> 1937
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<220>
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<400> 1937
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cctggccagg ctcccaggct cctcatctat gatgcgtcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcaa cagactggag 240
cctgaagatt ttgcagtata ttactgtcag cagtttggtc cctcaccgtt cacttttggc 300
caggggacca aggtggagat caaacga   327

<210> 1938
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
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<400> 1938
Asp Ile Val Met 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
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Asp Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Phe Gly Pro Ser Pro
                85   90   95
Phe Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1939
<211> 21
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<213> Artificial Sequence

<220>
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<400> 1939
cagagtgtta gtagcagcta c 21

<210> 1940
<211> 7
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<220>
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<400> 1940
Gln Ser Val Ser Ser Ser Tyr
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<210> 1941
<211> 9
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<400> 1941
gatgcgtcc 9

<210> 1942
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<220>
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<400> 1942
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<210> 1943
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<220>
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<400> 1943
cagcagtttg gtccctcacc gttcact 27

<210> 1944
<211> 9
<212> PRT
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<220>
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<400> 1944
Gln Gln Phe Gly Pro Ser Pro Phe Thr
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<210> 1945
<211> 363
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<220>
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<400> 1945
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ccagggaagg ggctggagtg ggtttcacac attagtggta gtggtaaaat catatatcac 180
gcagactatg tgaagggccg attcaccatc tccagggaca acgccaagaa gtcattgtat 240
ctgctaatga acagcctgag agccgaagac acggccgtgt attactgtgc gagagaggag 300
gtttactatg ggtcggggag ttttgagtac tggggccagg gaaccatggt caccgtctcc 360
tca 363

<210> 1946
<211> 121
<212> PRT
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<220>
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<400> 1946
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 Ser Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
Ser His Ile Ser Gly Ser Gly Lys Ile Ile Tyr His Ala Asp Tyr Val
 50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys 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 Glu Glu Val Tyr Tyr Gly Ser Gly Ser Phe Glu Tyr Trp Gly
100 105 110
Gln Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 1947
<211> 24
<212> DNA
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<220>
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<400> 1947
ggattcacct tcagtgacta ctac 24

<210> 1948
<211> 8
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<220>
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<400> 1948
Gly Phe Thr Phe Ser Asp Tyr Tyr
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<210> 1949
<211> 24
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<220>
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<400> 1949
attagtggta gtggtaaaat cata 24

<210> 1950
<211> 8
<212> PRT
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<220>
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<400> 1950
Ile Ser Gly Ser Gly Lys Ile Ile
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<210> 1951
<211> 42
<212> DNA
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<220>
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<400> 1951
gcgagagagg aggtttacta tgggtcgggg agttttgagt ac   42

<210> 1952
<211> 14
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<220>
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<400> 1952
Ala Arg Glu Glu Val Tyr Tyr Gly Ser Gly Ser Phe Glu Tyr
 1   5   10

<210> 1953
<211> 324
<212> DNA
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<220>
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<400> 1953
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gatcagtctc caaagctcct catcaagtat gcttcccagt ccttctcagg ggtcccctcg 180
aggttcagtg gcagtggatc tgggacagat ttcaccctca ccatcaatgg cctggaagct 240
gaagatgctg caacgtatta ctgtcatcag agtagtagtt taccgtggac gttcggccaa 300
gggaccaagg tggaaatcaa acga   324

<210> 1954
<211> 108
<212> PRT
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<220>
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<400> 1954
Asp Ile Val Met Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
 1   5   10   15
Glu Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr 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 Gly Leu Glu Ala
65   70   75   80
Glu Asp Ala Ala Thr Tyr Tyr Cys His Gln Ser Ser Ser Leu Pro Trp
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1955
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<400> 1955
cagaccattg gtagcagc 18

<210> 1956
<211> 6
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<220>
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<400> 1956
Gln Thr Ile Gly Ser Ser
 1   5

<210> 1957
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<400> 1957
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<210> 1958
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<400> 1958
Tyr Ala Ser
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<210> 1959
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<400> 1959
catcagagta gtagtttacc gtggacg 27

<210> 1960
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<220>
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<400> 1960
His Gln Ser Ser Ser Leu Pro Trp Thr
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<210> 1961
<211> 348
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<400> 1961
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggagggtc cctgagactc 60
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ccagggaagg ggctggagtg gatttcatac attagtacta gtggtagtac catatactac 180
gctgactctg tgaagggccg attcaccatc tccagagacg acgccaagaa ctcactgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgttt attactgtgc ggtgggatat 300

gggtggctac gattgtgggg ccagggaacc ctggtcaccg tctcctca 348

<210> 1962
<211> 116
<212> PRT
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<400> 1962
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
Glu Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Ser Tyr Ile Ser Thr Ser Gly Ser Thr Ile Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp 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 Val Gly Tyr Gly Trp Leu Arg Leu Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
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<210> 1963
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<400> 1963
ggattcacct tcagtagtta tgaa 24

<210> 1964
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<220>
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<400> 1964
Gly Phe Thr Phe Ser Ser Tyr Glu
 1   5

<210> 1965
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<400> 1965
attagtacta gtggtagtac cata 24

<210> 1966
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<400> 1966
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<210> 1967
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<400> 1967
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<210> 1968
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<400> 1968
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<210> 1969
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gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgttggaga cagagtcacc 60
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gggaaagttc ctaagctcct gatctatgct gcatccactt tgcaatcagg ggtcccatct 180
cggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagatgttg caacttatta ctgtcaaaag tatagcagtg ccccattcac tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 1970
<211> 108
<212> PRT
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<220>
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<400> 1970
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ile Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Val Ala Thr Tyr Tyr Cys Gln Lys Tyr Ser Ser Ala Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 1971
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<400> 1971
cagggcatta gcatttat 18

<210> 1972
<211> 6
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<400> 1972
Gln Gly Ile Ser Ile Tyr
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<210> 1973
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<400> 1973
gctgcatcc   9

<210> 1974
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<400> 1974
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<210> 1975
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<400> 1975
caaaagtata gcagtgcccc attcact   27

<210> 1976
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<400> 1976
Gln Lys Tyr Ser Ser Ala Pro Phe Thr
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<210> 1977
<211> 369
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caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggacac cctgtccctc 60
acctgcgctg tctctggtta ctccataaac agtaataact ggtggggttg gatccggcag 120
cccccaggga agggactgga gtggattggg tacatctatt ataatgggaa catctactac 180
aacccgtccc tcaagagtcg agtcaccatg tcagtagaca cgtccgagaa ccagttctcc 240
ctgaagctga gctctgtgac cgccgtggac acggccgtgt attactgtgc gaggtgtatt 300
acgatttttg gagtggttat ctccgctttt gatgtctggg gccaagggac aatggtcacc 360
gtctcttca   369

<210> 1978
<211> 123
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<400> 1978
Gln Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Asp
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Asn Ser Asn
            20   25   30
Asn Trp Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
        35   40   45
Ile Gly Tyr Ile Tyr Tyr Asn Gly Asn Ile Tyr Tyr Asn Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Met Ser Val Asp Thr Ser Glu Asn Gln Phe Ser
65   70   75   80
Leu Lys Leu Ser Ser Val Thr Ala Val Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Cys Ile Thr Ile Phe Gly Val Val Ile Ser Ala Phe Asp Val
            100   105   110
Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 1979
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<212> DNA
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<400> 1979
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<210> 1980
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<400> 1980
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1 5

<210> 1981
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<220>
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<400> 1981
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<210> 1982
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<220>
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<400> 1982
Ile Tyr Tyr Asn Gly Asn Ile
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<210> 1983
<211> 48
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<400> 1983
gcgaggtgta ttacgatttt tggagtggtt atctccgctt ttgatgtc 48

<210> 1984
<211> 16
<212> PRT
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<220>
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<400> 1984
Ala Arg Cys Ile Thr Ile Phe Gly Val Val Ile Ser Ala Phe Asp Val
 1   5   10   15

<210> 1985
<211> 324
<212> DNA
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<220>
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<400> 1985
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 1986
<211> 108
<212> PRT
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<220>
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<400> 1986
Asp Ile Leu 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 Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro

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

<210> 1987
<211> 18
<212> DNA
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<220>
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<400> 1987
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<210> 1988
<211> 6
<212> PRT
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<220>
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<400> 1988
Gln Ser Ile Ser Ser Tyr
1 5

<210> 1989
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1989
gctgcatcc 9

<210> 1990
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<220>
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<400> 1990
Ala Ala Ser

<210> 1991
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<400> 1991
caacagagtt acagtacccc gtacact 27

<210> 1992
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<212> PRT
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<220>
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<400> 1992
Gln Gln Ser Tyr Ser Thr Pro Tyr Thr
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<210> 1993
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
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<400> 1993
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggagggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt agttatgaaa tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtttcatac attagtagta gtggtagtaa catatactac 180
gcagactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctcattgtat 240
ctgcaaatga acagcctgac agccgaggac acggctgttt attactgtgc ggtgggatat 300
gggtggctac gattgtgggg ccagggaacc ctggtcaccg tctcctca 348

<210> 1994
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 1994

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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
Glu Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Tyr Ile Ser Ser Ser Gly Ser Asn 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 Thr Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Val Gly Tyr Gly Trp Leu Arg Leu Trp Gly Gln Gly Thr Leu Val
            100                 105                 110
Thr Val Ser Ser
        115
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<210> 1995
<211> 24
<212> DNA
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<220>
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<400> 1995
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<210> 1996
<211> 8
<212> PRT
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<220>
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<400> 1996
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Gly Phe Thr Phe Ser Ser Tyr Glu
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<210> 1997
<211> 24
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<220>
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<400> 1997
attagtagta gtggtagtaa cata 24

<210> 1998
<211> 8
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<220>
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<400> 1998
Ile Ser Ser Ser Gly Ser Asn Ile
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<210> 1999
<211> 27
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<400> 1999
gcggtgggat atgggtggct acgattg   27

<210> 2000
<211> 9
<212> PRT
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<220>
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<400> 2000
Ala Val Gly Tyr Gly Trp Leu Arg Leu
 1   5

<210> 2001
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2001
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
ctcacttgcc gggcgagtca gggcattagc ttttatttag cctggtatca gcagaaacca 120
gggaaagttc ctaacctcct gatctatgct gcatccactt tgcaatcagg ggtcccatct 180
cggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagatgttg caacttatta ctgtcaaaag tataacagtg ccccattcac tttcggccct 300

gggaccaagg tggagatcaa acga 324

<210> 2002
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2002
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Leu Thr Cys Arg Ala Ser Gln Gly Ile Ser Phe Tyr
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Asn Leu Leu Ile
35 40 45
Tyr Ala Ala Ser 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 Phe
85 90 95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 2003
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2003
cagggcatta gcttttat 18

<210> 2004
<211> 6
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<213> Artificial Sequence

<220>
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<400> 2004
Gln Gly Ile Ser Phe Tyr
1 5

<210> 2005

<211> 9
<212> DNA
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<220>
<223> synthetic

<400> 2005
gctgcatcc 9

<210> 2006
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<220>
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<400> 2006
Ala Ala Ser
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<210> 2007
<211> 27
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<220>
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<400> 2007
caaaagtata acagtgcccc attcact 27

<210> 2008
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2008
Gln Lys Tyr Asn Ser Ala Pro Phe Thr
 1   5

<210> 2009
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2009
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agctgtgcca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaggtaa taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga atagcctgag agccgaggac acggctgtct attactgtgc gagagattta 300
tttttggagc ccccctacaa ctactacggt atggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 2010
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2010
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Cys
            20   25   30
Ala 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 Gly Asn Lys Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Leu Phe Leu Glu Pro Pro Tyr Asn Tyr Tyr Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 2011
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2011
ggattcacct tcagtagctg tgcc 24

<210> 2012
<211> 8

<212> PRT
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<220>
<223> synthetic

<400> 2012
Gly Phe Thr Phe Ser Ser Cys Ala
 1   5

<210> 2013
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2013
atatggtatg atggaggtaa taaa   24

<210> 2014
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2014
Ile Trp Tyr Asp Gly Gly Asn Lys
 1   5

<210> 2015
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2015
gcgagagatt tatttttgga gccccccctac aactactacg gtatggacgt c   51

<210> 2016
<211> 17
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<213> Artificial Sequence

<220>

<223> synthetic

<400> 2016
Ala Arg Asp Leu Phe Leu Glu Pro Pro Tyr Asn Tyr Tyr Gly Met Asp
 1   5   10   15
Val

<210> 2017
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2017
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcgagtca ggacattacc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctacgct gcatccaatt tggaaacagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagattttg caacatatta ttgtcaacac tatgataatt ttccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 2018
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2018
Asp Ile Leu 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 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 Phe Ala Thr Tyr Tyr Cys Gln His Tyr Asp Asn Phe Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2019
<211> 18

<212> DNA
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<220>
<223> synthetic

<400> 2019
caggacatta ccaactat 18

<210> 2020
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2020
Gln Asp Ile Thr Asn Tyr
1 5

<210> 2021
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2021
gctgcatcc 9

<210> 2022
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2022
Ala Ala Ser
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<210> 2023
<211> 27
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2023
caacactatg ataattttcc gctcact 27

<210> 2024
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2024
Gln His Tyr Asp Asn Phe Pro Leu Thr
1 5

<210> 2025
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2025
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggagggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt agttatgaaa tgaactgggt ccgccaggct 120
ccagggaagg gactggagtg ggtttcatac ataagtagta gtggtagtaa tatatactat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acgtcaagaa ttcattgtat 240
ctgcaaataa acagcctgac agccgaggac acggctgttt attactgtgc ggtgggatat 300
gggtggctac gattgtgggg ccagggaacc ctggtcaccg tctcctca 348

<210> 2026
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2026
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
Glu Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Tyr Ile Ser Ser Ser Gly Ser Asn Ile Tyr Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Val Lys Asn Ser Leu Tyr

65 70 75 80
Leu Gln Ile Asn Ser Leu Thr Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Val Gly Tyr Gly Trp Leu Arg Leu Trp Gly Gln Gly Thr Leu Val
100 105 110
Thr Val Ser Ser
115

<210> 2027
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2027
ggattcacct tcagtagtta tgaa 24

<210> 2028
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 2028
Gly Phe Thr Phe Ser Ser Tyr Glu
1 5

<210> 2029
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2029
ataagtagta gtggtagtaa tata 24

<210> 2030
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 2030
Ile Ser Ser Ser Gly Ser Asn Ile
 1   5

<210> 2031
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2031
gcggtgggat atgggtggct acgattg   27

<210> 2032
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2032
Ala Val Gly Tyr Gly Trp Leu Arg Leu
 1   5

<210> 2033
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2033
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcgagtca gggcattagc ttttatttag cctggtatca gcagaaacca 120
gggaaacttc ctaacctcct gatctatgct gcatccactt tgcaatcagg ggtcccatcc 180
cggttcagtg gcagtggatc tgggacagat ttcactctca cgatcagcag cctgcagcct 240
gaagatgttg caacttatta ctgtcaaaag tataacagtg ccccattcac tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 2034
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2034
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Phe Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Leu Pro Asn 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 Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2035
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2035
cagggcatta gcttttat 18

<210> 2036
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2036
Gln Gly Ile Ser Phe Tyr
 1   5

<210> 2037
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2037
gctgcatcc 9

<210> 2038
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2038
Ala Ala Ser
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<210> 2039
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2039
caaaagtata acagtgcccc attcact 27

<210> 2040
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2040
Gln Lys Tyr Asn Ser Ala Pro Phe Thr
 1   5

<210> 2041
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2041
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgctg tctatgctgg gcccttcagt ggttactttt ggagctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcaatcata gtggaagcac aaactacaac 180
ccgtccctca ggagtcgagt caccatatca gtagatacgt ccaataacca gttctccctg 240
aaactgagct ctgtgaccgc cgcggacacg gctaattatt actgtgcgag aggccgagag 300

atactcgttt actactttga ctactggggc cagggaaccc tggtcaccgt ctcctca 357

<210> 2042
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2042
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
1 5 10 15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Ala Gly Pro Phe Ser Gly Tyr
20 25 30
Phe Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45
Gly Glu Ile Asn His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Arg
50 55 60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Asn Asn Gln Phe Ser Leu
65 70 75 80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Asn Tyr Tyr Cys Ala
85 90 95
Arg Gly Arg Glu Ile Leu Val Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly
100 105 110
Thr Leu Val Thr Val Ser Ser
115

<210> 2043
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2043
gctgggccct tcagtggtta cttt 24

<210> 2044
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2044
Ala Gly Pro Phe Ser Gly Tyr Phe
1 5

<210> 2045
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2045
atcaatcata gtggaagcac a 21

<210> 2046
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2046
Ile Asn His Ser Gly Ser Thr
1 5

<210> 2047
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2047
gcgagaggcc gagagatact cgtttactac tttgactac 39

<210> 2048
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2048
Ala Arg Gly Arg Glu Ile Leu Val Tyr Tyr Phe Asp Tyr
1 5 10

<210> 2049
<211> 324
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 2049
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattgat tactggttgg cctggtatca gcagagacca 120
gggaaagccc ctaaactcct gatctataag gcgtctactt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccgtcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tatcatagtt attcgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 2050
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2050
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 Asp Tyr Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Arg Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Lys Ala Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Val Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr His Ser Tyr Ser Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2051
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2051
cagagtattg attactgg 18

<210> 2052
<211> 6
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 2052
Gln Ser Ile Asp Tyr Trp
 1   5

<210> 2053
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2053
aaggcgtct   9

<210> 2054
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2054
Lys Ala Ser
 1

<210> 2055
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2055
caacagtatc atagttattc gtacact   27

<210> 2056
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2056
Gln Gln Tyr His Ser Tyr Ser Tyr Thr
 1   5

<210> 2057
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2057
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgctg tctatggtgg gaccttcaat ttttaccagt ggagttggat ccgccagccc 120
ccagggaagg gtctggagtg gattggggaa atcaatcata ctggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatttca gtagacacgt ccaagaccca gttctccctg 240
aaggtgagct ctgtgaccgc cgcggacacg gctgtttatt actgtgcgag aggcccctct 300
tcaataacta cggactacta cggtatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca   366

<210> 2058
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2058
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Thr Phe Asn Phe Tyr
            20   25   30
Gln Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asn His Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Thr Gln Phe Ser Leu
65   70   75   80
Lys Val Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Pro Ser Ser Ile Thr Thr Asp Tyr Tyr Gly Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 2059
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2059
ggtgggacct tcaattttta ccag 24

<210> 2060
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2060
Gly Gly Thr Phe Asn Phe Tyr Gln
1 5

<210> 2061
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2061
atcaatcata ctggaagcac c 21

<210> 2062
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2062
Ile Asn His Thr Gly Ser Thr
1 5

<210> 2063
<211> 48
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2063
gcgagaggcc cctcttcaat aactacggac tactacggta tggacgtc 48

<210> 2064
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2064
Ala Arg Gly Pro Ser Ser Ile Thr Thr Asp Tyr Tyr Gly Met Asp Val
 1   5   10   15

<210> 2065
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2065
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagcca gagtgttagt atcaactact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggcg cctcatctat gaaacattta gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cagtatggtg actcaccgta cacttttggc 300
caggggacca aggtggagat caaacga 327

<210> 2066
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2066
Asp Ile Val Met 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 Ile Asn
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Arg Leu
        35   40   45
Ile Tyr Glu Thr Phe Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu

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

<210> 2067
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2067
cagagtgtta gtatcaacta c 21

<210> 2068
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2068
Gln Ser Val Ser Ile Asn Tyr
1 5

<210> 2069
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2069
gaaacattt 9

<210> 2070
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2070
Glu Thr Phe

<210> 2071
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2071
cagcagtatg gtgactcacc gtacact 27

<210> 2072
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2072
Gln Gln Tyr Gly Asp Ser Pro Tyr Thr
1 5

<210> 2073
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2073
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggagggtc cctaagactc 60
tcctgtgtaa tctctggatt catctttagg agttatgcca tgacctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcaggt gtaagtggta gtggtgatac cacaaactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacggtgttt 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaagatttt 300
ctgggaacta ccttctacgg tatggacgtc tggggccatg ggaccacggt caccgtctcc 360
tca 363

<210> 2074
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2074
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Val Ile Ser Gly Phe Ile Phe Arg Ser Tyr
            20   25   30
Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Val Ser Gly Ser Gly Asp Thr Thr Asn Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Val 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 Lys Asp Phe Leu Gly Thr Thr Phe Tyr Gly Met Asp Val Trp Gly
            100   105   110
His Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 2075
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2075
ggattcatct ttaggagtta tgcc 24

<210> 2076
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2076
Gly Phe Ile Phe Arg Ser Tyr Ala
 1   5

<210> 2077
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2077

gtaagtggta gtggtgatac caca 24

<210> 2078
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2078
Val Ser Gly Ser Gly Asp Thr Thr
 1 5

<210> 2079
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2079
gcgaaagatt ttctgggaac taccttctac ggtatggacg tc 42

<210> 2080
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2080
Ala Lys Asp Phe Leu Gly Thr Thr Phe Tyr Gly Met Asp Val
 1 5 10

<210> 2081
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2081
gacatcgtga tgacccagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc aggttcttag cctggtacca acagaaacct 120
ggccaggctc ccaggctcct catctatgaa acatccaaca gggccactgg catcccagcc 180
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240

gaagattgtg cagtttatta ctgtcagcag cggaacaact ggcctcctat tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 2082
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2082
Asp Ile Val Met Thr Gln Ser Pro Ala 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 Arg Phe
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Glu Thr Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65   70   75   80
Glu Asp Cys Ala Val Tyr Tyr Cys Gln Gln Arg Asn Asn Trp Pro Pro
                85   90   95
Ile Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2083
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2083
cagagtgtta gcaggttc 18

<210> 2084
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2084
Gln Ser Val Ser Arg Phe
 1   5

<210> 2085
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2085
gaaacatcc 9

<210> 2086
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2086
Glu Thr Ser
1

<210> 2087
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2087
cagcagcgga acaactggcc tcctatt 27

<210> 2088
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2088
Gln Gln Arg Asn Asn Trp Pro Pro Ile
1 5

<210> 2089
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2089
caggtgcagc tggtggagtc tgggggaggc ttggtcaagc ctggagggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagc aactactata tgagctggat ccgccagtct 120
ccagggaagg gactggaatg ggtctcatat attagtaata gtggtagtac catatcttat 180
gcagactctg tgcagggccg attcaccatc tccagggaca acgccaagaa ctcactgttt 240
ctacaaatga acagcctgag ggccgaggac acggccgcat attactgtgc gagagagggt 300
atcgcacctg ctggcctctt tgactactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 2090
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2090
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 Asn Tyr
            20   25   30
Tyr Met Ser Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Tyr Ile Ser Asn Ser Gly Ser Thr Ile Ser Tyr Ala Asp Ser Val
    50   55   60
Gln 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 Ala Glu Asp Thr Ala Ala Tyr Tyr Cys
                85   90   95
Ala Arg Glu Gly Ile Ala Pro Ala Gly Leu Phe Asp Tyr Trp Gly Gln
            100   105   110
Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 2091
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2091
ggattcacct tcagcaacta ctat   24

<210> 2092

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

<220>
<223> synthetic

<400> 2092
Gly Phe Thr Phe Ser Asn Tyr Tyr
 1   5

<210> 2093
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2093
attagtaata gtggtagtac cata   24

<210> 2094
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2094
Ile Ser Asn Ser Gly Ser Thr Ile
 1   5

<210> 2095
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2095
gcgagagagg gtatcgcacc tgctggcctc tttgactac   39

<210> 2096
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2096
Ala Arg Glu Gly Ile Ala Pro Ala Gly Leu Phe Asp Tyr
 1   5   10

<210> 2097
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2097
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtgggaga cagagtcacc 60
atcacttgcc gggcgagtca ggccattaga agttatttag cctggtatca gaagagacca 120
gggaaagttc ctaaactcct gatctatgct gcatccactt tacattcagg ggtcccatct 180
cgtttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagatgtta caacttatta ctgtcaaaac tataacagtc ccccgtggac attcggccaa 300
gggaccaagg tggagatcaa acga   324

<210> 2098
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2098
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 Ala Ile Arg Ser Tyr
            20   25   30
Leu Ala Trp Tyr Gln Lys Arg Pro Gly Lys Val Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Thr Leu His 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 Thr Thr Tyr Tyr Cys Gln Asn Tyr Asn Ser Pro Pro Trp
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2099
<211> 18
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 2099
caggccatta gaagttat 18

<210> 2100
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2100
Gln Ala Ile Arg Ser Tyr
 1   5

<210> 2101
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2101
gctgcatcc 9

<210> 2102
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2102
Ala Ala Ser
 1

<210> 2103
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2103
caaaactata acagtccccc gtggaca 27

<210> 2104
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2104
Gln Asn Tyr Asn Ser Pro Pro Trp Thr
1 5

<210> 2105
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2105
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcaat agctttgcat tccactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taaatattat 180
ggagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agtcgaggac acggctatat attattgtgc gagggatttc 300
tttttggagc ccccctatca ttactacgga atggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 2106
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2106
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Ser Phe
20 25 30
Ala Phe 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 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 Val Glu Asp Thr Ala Ile Tyr Tyr Cys
85 90 95
Ala Arg Asp Phe Phe Leu Glu Pro Pro Tyr His Tyr Tyr Gly Met Asp
100 105 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 2107
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2107
ggattcacct tcaatagctt tgca 24

<210> 2108
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2108
Gly Phe Thr Phe Asn Ser Phe Ala
1 5

<210> 2109
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2109
atatggtatg atggaagtaa taaa 24

<210> 2110
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2110
Ile Trp Tyr Asp Gly Ser Asn Lys
 1   5

<210> 2111
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2111
gcgagggatt tctttttgga gccccctat cattactacg gaatggacgt c   51

<210> 2112
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2112
Ala Arg Asp Phe Phe Leu Glu Pro Pro Tyr His Tyr Tyr Gly Met Asp
 1   5   10   15
Val

<210> 2113
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2113
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacctgcc aggcgagtca ggacattatc aactatttaa attggtatca acagaaacca 120
gggaaagccc ctaagctcct tatttacgct gcatccactt tggaaacagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagaac cctgcagcct 240
gaagatcttg caacatatta ctgtcaacaa tatgataatc tccccctcac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 2114
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2114
Asp Ile Leu 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 Ile 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 Ala Ala Ser Thr 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 Arg Thr Leu Gln Pro
65   70   75   80
Glu Asp Leu Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asn Leu Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2115
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2115
caggacatta tcaactat   18

<210> 2116
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2116
Gln Asp Ile Ile Asn Tyr
 1   5

<210> 2117
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2117
gctgcatcc 9

<210> 2118
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2118
Ala Ala Ser
1

<210> 2119
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2119
caacaatatg ataatctccc cctcact 27

<210> 2120
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2120
Gln Gln Tyr Asp Asn Leu Pro Leu Thr
1 5

<210> 2121
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2121
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagtt 120
ccagggaagg gcctggagtg ggtctcaggc attagttgga atagtgataa tgtcgactat 180

gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag acctgaagac acggccttgt attactgtgc aaaagatgta 300
gatatactgg ccccctacgg aatggacgtc tggggccaag ggacaatggt caccgtctcc 360
tca 363

<210> 2122
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2122
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20 25 30
Ala Met His Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
        35 40 45
Ser Gly Ile Ser Trp Asn Ser Asp Asn Val Asp 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 Pro Glu Asp Thr Ala Leu Tyr Tyr Cys
                85 90 95
Ala Lys Asp Val Asp Ile Leu Ala Pro Tyr Gly Met Asp Val Trp Gly
            100 105 110
Gln Gly Thr Met Val Thr Val Ser Ser
        115 120

<210> 2123
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2123
ggattcacct ttgatgatta tgcc 24

<210> 2124
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 2124

Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 2125
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2125
attagttgga atagtgataa tgtc 24

<210> 2126
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2126
Ile Ser Trp Asn Ser Asp Asn Val
1 5

<210> 2127
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2127
gcaaaagatg tagatatact ggccccctac ggaatggacg tc 42

<210> 2128
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2128
Ala Lys Asp Val Asp Ile Leu Ala Pro Tyr Gly Met Asp Val
1 5 10

<210> 2129
<211> 330
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2129
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagcctcc 60
ctctcctgca gggccagtca gattgttaac agcaactact ttgcctggta ccaacagaaa 120
cctggccact ctcccaggct cctcctctat ggtccatcca ggagggccac tggtatccca 180
gacacgttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagacttgag 240
cctgaagatt ttgcatttta ttactgtcag cactatggta tctcatacat gtatgcgttt 300
ggccagggga ccaaggtgga gatcaaacga 330

<210> 2130
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2130
Asp Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Ser Leu Ser Cys Arg Ala Ser Gln Ile Val Asn Ser Asn
            20   25   30
Tyr Phe Ala Trp Tyr Gln Gln Lys Pro Gly His Ser Pro Arg Leu Leu
        35   40   45
Leu Tyr Gly Pro Ser Arg Arg Ala Thr Gly Ile Pro Asp Thr Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Phe Tyr Tyr Cys Gln His Tyr Gly Ile Ser Tyr
                85   90   95
Met Tyr Ala Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105   110

<210> 2131
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2131
cagattgtta acagcaacta c 21

<210> 2132
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2132
Gln Ile Val Asn Ser Asn Tyr
 1   5

<210> 2133
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2133
ggtccatcc   9

<210> 2134
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2134
Gly Pro Ser
 1

<210> 2135
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2135
cagcactatg gtatctcata catgtatgcg   30

<210> 2136
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2136
Gln His Tyr Gly Ile Ser Tyr Met Tyr Ala
 1   5   10

<210> 2137
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2137
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgaaactc 60
tcctgtgtag cctcaggatt cacctttgat gattatgata tgtattgggt ccggcaagtt 120
ccagggaagg gcctggagtg ggtctcaact ataagttgga atagtgaaaa catagactac 180
gcggactctg tcaagggccg attcaccatc tccagagaca acgccgagaa ctccctgtat 240
ttgcaaatga acagtctgag agctgaggac acggccttgt attactgtac aaaaaatata 300
gatatattgg ccccctatgg aatggacgtc tggggccaag ggaccacggt caccgtctcc 360
tca   363

<210> 2138
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2138
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Lys Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Asp Met Tyr Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Thr Ile Ser Trp Asn Ser Glu Asn Ile Asp Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Glu Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Thr Lys Asn Ile Asp Ile Leu Ala Pro Tyr Gly Met Asp Val Trp Gly
            100   105   110
Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 2139
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2139
ggattcacct ttgatgatta tgat 24

<210> 2140
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2140
Gly Phe Thr Phe Asp Asp Tyr Asp
1 5

<210> 2141
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2141
ataagttgga atagtgaaaa cata 24

<210> 2142
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2142
Ile Ser Trp Asn Ser Glu Asn Ile
1 5

<210> 2143
<211> 42
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 2143
acaaaaaata tagatatatt ggccccctat ggaatggacg tc 42

<210> 2144
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2144
Thr Lys Asn Ile Asp Ile Leu Ala Pro Tyr Gly Met Asp Val
 1 5 10

<210> 2145
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2145
gacatcctga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctatcctgca gggccagtca gattattaac agcaactatt tggcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gaagggccac tggcatcccc 180
gataggttca gtcgcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtcta ttactgtcag cactatggta gttcatacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 2146
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2146
Asp Ile Leu Met 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 Ile Ile Asn Ser Asn
 20 25 30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
 35 40 45

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

<210> 2147
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2147
cagattatta acagcaacta t 21

<210> 2148
<211> 7
<212> PRT
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<220>
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<400> 2148
Gln Ile Ile Asn Ser Asn Tyr
1 5

<210> 2149
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<212> DNA
<213> Artificial Sequence

<220>
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<400> 2149
ggtgcatcc 9

<210> 2150
<211> 3
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<220>
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<400> 2150
Gly Ala Ser
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<210> 2151
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2151
cagcactatg gtagttcata cact 24

<210> 2152
<211> 8
<212> PRT
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<220>
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<400> 2152
Gln His Tyr Gly Ser Ser Tyr Thr
 1   5

<210> 2153
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2153
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gaatatgcca tgcactgggt ccggcaagtt 120
ccagggaagg gcctggagtg ggtctcaggt attagttggg atggtggtaa cataggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag acctgaggac acggccttgt attactgttc aaaagatatt 300
gtactagtac caactgggga ctactactac tacgctatgg acgtctgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 2154
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2154
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Glu Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asp Gly Gly Asn Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ser Lys Asp Ile Val Leu Val Pro Thr Gly Asp Tyr Tyr Tyr Tyr Ala
            100   105   110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 2155
<211> 24
<212> DNA
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<220>
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<400> 2155
ggattcacct ttgatgaata tgcc   24

<210> 2156
<211> 8
<212> PRT
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<220>
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<400> 2156
Gly Phe Thr Phe Asp Glu Tyr Ala
 1   5

<210> 2157
<211> 24
<212> DNA
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<220>

<223> synthetic

<400> 2157
attagttggg atggtggtaa cata 24

<210> 2158
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2158
Ile Ser Trp Asp Gly Gly Asn Ile
1 5

<210> 2159
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2159
tcaaaagata ttgtactagt accaactggg gactactact actacgctat ggacgtc 57

<210> 2160
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2160
Ser Lys Asp Ile Val Leu Val Pro Thr Gly Asp Tyr Tyr Tyr Tyr Ala
1 5 10 15
Met Asp Val

<210> 2161
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2161
gacatccaga tgacccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca gggtattatc agctggttag cctggtatca gcagaaacca 120
gggaaagccc ctaacctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcaa cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaacagtt tcccattcac tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 2162
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2162
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ile Ser Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2163
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2163
cagggtatta tcagctgg 18

<210> 2164
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2164
Gln Gly Ile Ile Ser Trp
 1   5

<210> 2165
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2165
gctgcatcc   9

<210> 2166
<211> 3
<212> PRT
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<220>
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<400> 2166
Ala Ala Ser
 1

<210> 2167
<211> 27
<212> DNA
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<220>
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<400> 2167
caacaggcta acagtttccc attcact   27

<210> 2168
<211> 9
<212> PRT
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<220>
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<400> 2168
Gln Gln Ala Asn Ser Phe Pro Phe Thr
 1   5

<210> 2169
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2169
gaggtgcagc tggtggagtc tggagcagag gtgaaaaagc ccggggagtc tctgaagatc 60
tcctgtaagg tttctggata caacttttcc aaatactgga tcggctgggt gcgccagatg 120
cccgggaaag gcctagagtg gatgggattc atctatcctg gtgactctga taccagatac 180
agcccgtcct tccaaggcca ggtcaccctc tcagccgaca agtccatcaa caccgcctac 240
ctgcagtgga acagcctgaa ggcctcggac accgccatgt acttctgtgc gagacagggg 300
agatatatat ctgcagctgg taattttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 2170
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2170
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Val Ser Gly Tyr Asn Phe Ser Lys Tyr
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Phe Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Leu Ser Ala Asp Lys Ser Ile Asn Thr Ala Tyr
65   70   75   80
Leu Gln Trp Asn Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Phe Cys
                85   90   95
Ala Arg Gln Gly Arg Tyr Ile Ser Ala Ala Gly Asn Phe Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 2171
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2171
ggatacaact tttccaaata ctgg 24

<210> 2172
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2172
Gly Tyr Asn Phe Ser Lys Tyr Trp
1 5

<210> 2173
<211> 24
<212> DNA
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<220>
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<400> 2173
atctatcctg gtgactctga tacc 24

<210> 2174
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2174
Ile Tyr Pro Gly Asp Ser Asp Thr
1 5

<210> 2175
<211> 45
<212> DNA
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<220>
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<400> 2175
gcgagacagg ggagatatat atctgcagct ggtaattttg actac 45

<210> 2176
<211> 15
<212> PRT
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<220>
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<400> 2176
Ala Arg Gln Gly Arg Tyr Ile Ser Ala Ala Gly Asn Phe Asp Tyr
 1   5   10   15

<210> 2177
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2177
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc acctatttaa attggtatca acagaaacca 120
gggaaagccc ctaaggtcct gatctatgct gtatccaatt tacaaagtgg ggtcccatca 180
aggttcagtg gcagtggctc tgagacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttactt ctgtcaacag acttacagtc tcccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 2178
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2178
Asp Ile Leu 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 Ser Ile Ser Thr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35   40   45
Tyr Ala Val Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Glu Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Thr Tyr Ser Leu Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2179
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2179
cagagcatta gcacctat 18

<210> 2180
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2180
Gln Ser Ile Ser Thr Tyr
1 5

<210> 2181
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2181
gctgtatcc 9

<210> 2182
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2182
Ala Val Ser
1

<210> 2183
<211> 27

<212> DNA
<213> Artificial Sequence

<220>
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<400> 2183
caacagactt acagtctccc gctcact 27

<210> 2184
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2184
Gln Gln Thr Tyr Ser Leu Pro Leu Thr
 1 5

<210> 2185
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2185
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccattagt agttactact ggagctggat ccgacagtcc 120
ccagggaagg gactggagtg gattggctat atctattaca gtgggaggac caattataat 180
ccctctctca agagtcgggt caccatatca gtagactcgt ccaagaatca gttctccctg 240
aagctgagct ctgtgaccgc tgcggacacg gccgtgtatt actgtgcgag gggggctagt 300
tcttctgact actactattt cggtatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 2186
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2186
Glu Val Gln Leu Val 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

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Tyr Trp Ser Trp Ile Arg Gln Ser 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 Ser Ser Lys Asn Gln Phe Ser Leu
65                  70                  75                  80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Gly Ala Ser Ser Ser Asp Tyr Tyr Tyr Phe Gly Met Asp Val Trp
            100                 105                 110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120
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<210> 2187
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2187
ggtggctcca ttagtagtta ctac 24

<210> 2188
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2188
Gly Gly Ser Ile Ser Ser Tyr Tyr
 1   5

<210> 2189
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2189
atctattaca gtgggaggac c 21

<210> 2190
<211> 7
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 2190
Ile Tyr Tyr Ser Gly Arg Thr
 1   5

<210> 2191
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2191
gcgaggggggg ctagttcttc tgactactac tatttcggta tggacgtc   48

<210> 2192
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2192
Ala Arg Gly Ala Ser Ser Ser Asp Tyr Tyr Tyr Phe Gly Met Asp Val
 1   5   10   15

<210> 2193
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2193
gacatcctga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gaatatttta tacagctcca acactaagac ctacttagct 120
tggtaccagc agaaaccagg gcagcctcct aaactgctca tttactgggc atctacccgg 180
gaatcctggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgctgactga agatgtggca atttatttct gtcaacaata ctataatact 300
ccgtggacgt tcggccaagg gaccaaggtg gagatcaaac ga   342

<210> 2194
<211> 114

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2194
Asp Ile Leu Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Asn Ile Leu Tyr Ser
            20   25   30
Ser Asn Thr Lys Thr Tyr Leu Ala 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 Trp 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 Leu Thr Glu Asp Val Ala Ile Tyr Phe Cys Gln Gln
                85   90   95
Tyr Tyr Asn Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys Arg

<210> 2195
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2195
cagaatattt tatacagctc caacactaag acctac   36

<210> 2196
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2196
Gln Asn Ile Leu Tyr Ser Ser Asn Thr Lys Thr Tyr
 1   5   10

<210> 2197
<211> 9
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 2197
tgggcatct 9

<210> 2198
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2198
Trp Ala Ser
1

<210> 2199
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2199
caacaatact ataatactcc gtggacg 27

<210> 2200
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2200
Gln Gln Tyr Tyr Asn Thr Pro Trp Thr
1 5

<210> 2201
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2201
gaggtgcagc tggtggagtc tgggggagaa ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgaca tgcactgggt ccggcaagct 120
ccagggaatg gcctggagtg ggtctcaggt attagttgga atagtggtag tataggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaaaatgtg 300
gatatagtgg ccccctacgg tatggacgtc tggggccaag ggaccacggt caccgtctcc 360
tca 363

<210> 2202
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2202
Glu Val Gln Leu Val Glu Ser Gly Gly Glu Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Asp Met His Trp Val Arg Gln Ala Pro Gly Asn Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asn Val Asp Ile Val Ala Pro Tyr Gly Met Asp Val Trp Gly
            100   105   110
Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 2203
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2203
ggattcacct ttgatgatta tgac 24

<210> 2204
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2204
Gly Phe Thr Phe Asp Asp Tyr Asp
 1   5

<210> 2205
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2205
attagttgga atagtggtag tata   24

<210> 2206
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2206
Ile Ser Trp Asn Ser Gly Ser Ile
 1   5

<210> 2207
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2207
gcaaaaaatg tggatatagt ggccccctac ggtatggacg tc   42

<210> 2208
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2208
Ala Lys Asn Val Asp Ile Val Ala Pro Tyr Gly Met Asp Val
 1   5   10

<210> 2209
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2209
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ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cactatggta gctcatacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 2210
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2210
Asp Ile Leu Met 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
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Tyr Gly Ser Ser Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2211
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2211
cagagtgtta gcagcagcta c 21

<210> 2212
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2212
Gln Ser Val Ser Ser Ser Tyr
1 5

<210> 2213
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2213
ggtgcatcc 9

<210> 2214
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2214
Gly Ala Ser
1

<210> 2215
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2215
cagcactatg gtagctcata cact 24

<210> 2216
<211> 8
<212> PRT
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<220>
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<400> 2216
Gln His Tyr Gly Ser Ser Tyr Thr
 1   5

<210> 2217
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2217
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggaat cacctttgat gattatgcca tgcactgggt ccggcaaggt 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtaa tataggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa atccctgtat 240
ctgcaaatga atagtctgag agctgaggac acggccttgt attactgtgc aaaagatata 300
gcagcagctg gtctttacta ctacggtatg gacgtctggg gccaagggac cacggtcacc 360
gtctcctca   369

<210> 2218
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2218
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ile Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Gly Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Asn Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95

Ala Lys Asp Ile Ala Ala Ala Gly Leu Tyr Tyr Tyr Gly Met Asp Val
100 105 110
Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 2219
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2219
ggaatcacct ttgatgatta tgcc 24

<210> 2220
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2220
Gly Ile Thr Phe Asp Asp Tyr Ala
1 5

<210> 2221
<211> 24
<212> DNA
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<220>
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<400> 2221
attagttgga atagtggtaa tata 24

<210> 2222
<211> 8
<212> PRT
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<220>
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<400> 2222
Ile Ser Trp Asn Ser Gly Asn Ile
1 5

<210> 2223
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2223
gcaaaagata tagcagcagc tggtctttac tactacggta tggacgtc 48

<210> 2224
<211> 16
<212> PRT
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<220>
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<400> 2224
Ala Lys Asp Ile Ala Ala Ala Gly Leu Tyr Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 2225
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2225
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca ggacattaga aatgctttag gctggtatca tcagaaacca 120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag gttaatagtt acccattcac tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 2226
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2226
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly

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 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asn Ala
            20                  25                  30
Leu Gly Trp Tyr His 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 Val Asn Ser Tyr Pro Phe
                85                  90                  95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 2227
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<212> DNA
<213> Artificial Sequence

<220>
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<400> 2227
caggacatta gaaatgct 18

<210> 2228
<211> 6
<212> PRT
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<220>
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<400> 2228
Gln Asp Ile Arg Asn Ala
 1   5

<210> 2229
<211> 9
<212> DNA
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<220>
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<400> 2229
gctgcatcc 9

<210> 2230
<211> 3

<212> PRT
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<220>
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<400> 2230
Ala Ala Ser
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<210> 2231
<211> 27
<212> DNA
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<220>
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<400> 2231
ctacaggtta atagttaccc attcact 27

<210> 2232
<211> 9
<212> PRT
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<220>
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<400> 2232
Leu Gln Val Asn Ser Tyr Pro Phe Thr
 1 5

<210> 2233
<211> 363
<212> DNA
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<220>
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<400> 2233
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acctgtgcca tctccgggga cagtgtctct agcaacagtg ctgcttggaa ctggatcagg 120
cagtccccat cgagaggcct tgagtggctg ggaaggacat attataggtt taagtggtat 180
aatgattatg cagtatctgt gaaaagtcga ataaccatca acccagacac atccaagaac 240
cagttctccc tgcagttgaa ctctgtgact cccgaggaca cggctgtgta ttactgtgca 300
agtggggact ggaactatca ctttgactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 2234
<211> 121
<212> PRT
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<220>
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<400> 2234
Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Ile Ser Gly Asp Ser Val Ser Ser Asn
            20   25   30
Ser Ala 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 Phe Lys Trp Tyr Asn Asp Tyr Ala
    50   55   60
Val Ser Val Lys Ser Arg Ile Thr Ile Asn Pro Asp Thr Ser Lys Asn
65   70   75   80
Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
                85   90   95
Tyr Tyr Cys Ala Ser Gly Asp Trp Asn Tyr His Phe Asp Tyr Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 2235
<211> 30
<212> DNA
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<220>
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<400> 2235
ggggacagtg tctctagcaa cagtgctgct   30

<210> 2236
<211> 10
<212> PRT
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<220>
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<400> 2236
Gly Asp Ser Val Ser Ser Asn Ser Ala Ala
 1   5   10

<210> 2237

<211> 27
<212> DNA
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<220>
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<400> 2237
acatattata ggtttaagtg gtataat 27

<210> 2238
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 2238
Thr Tyr Tyr Arg Phe Lys Trp Tyr Asn
1 5

<210> 2239
<211> 33
<212> DNA
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<220>
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<400> 2239
gcaagtgggg actggaacta tcactttgac tac 33

<210> 2240
<211> 11
<212> PRT
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<220>
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<400> 2240
Ala Ser Gly Asp Trp Asn Tyr His Phe Asp Tyr
1 5 10

<210> 2241
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2241
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaacctcct gatctatgct gcatccaatt tacaaattgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcaacag tctgcaacct 240
gaagattttg cagcttacta ctgtcaacag agttacagaa ccccgtacac ttttggcctg 300
gggaccaagg tggagatcaa acga 324

<210> 2242
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2242
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 Ser Ile Ser Asn Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Asn Leu Gln Ile 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 Gln Pro
65   70   75   80
Glu Asp Phe Ala Ala Tyr Tyr Cys Gln Gln Ser Tyr Arg Thr Pro Tyr
                85   90   95
Thr Phe Gly Leu Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2243
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2243
cagagcatta gcaactat 18

<210> 2244
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2244
Gln Ser Ile Ser Asn Tyr
 1   5

<210> 2245
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2245
gctgcatcc   9

<210> 2246
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2246
Ala Ala Ser
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<210> 2247
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2247
caacagagtt acagaacccc gtacact   27

<210> 2248
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2248

Gln Gln Ser Tyr Arg Thr Pro Tyr Thr
 1   5

<210> 2249
<211> 384
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2249
caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt aattactact ggagctggat ccggcagcac 120
ccagggaagg gactggagtg gattgggtat atctattaca gtgggagcac caactacaaa 180
ccctccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aagctgagtt ctgtgaccgc tgcggacacg gccgtgtatt actgtgcgag agataccatt 300
gattactatg gttcggggag ttcaagctac tactactacg gtatggacat ctggggccaa 360
gggaccacgg tcaccgtctc ctca   384

<210> 2250
<211> 128
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2250
Gln Val Gln Leu Val 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 His Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Lys Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Thr Ile Asp Tyr Tyr Gly Ser Gly Ser Ser Ser Tyr Tyr Tyr
            100   105   110
Tyr Gly Met Asp Ile Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 2251
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2251
ggtggctcca tcagtaatta ctac 24

<210> 2252
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2252
Gly Gly Ser Ile Ser Asn Tyr Tyr
1 5

<210> 2253
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2253
atctattaca gtgggagcac c 21

<210> 2254
<211> 7
<212> PRT
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<220>
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<400> 2254
Ile Tyr Tyr Ser Gly Ser Thr
1 5

<210> 2255
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2255
gcgagagata ccattgatta ctatggttcg gggagttcaa gctactacta ctacggtatg 60
gacatc 66

<210> 2256
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2256
Ala Arg Asp Thr Ile Asp Tyr Tyr Gly Ser Gly Ser Ser Ser Tyr Tyr
 1   5   10   15
Tyr Tyr Gly Met Asp Ile
            20

<210> 2257
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2257
gacatcgtga tgacccagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtca gagcctcctg catagtaatg gatacaacta tttggattgg 120
tacctgcaga agccagggca gtctccacag ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcggagtgg aggctgagga tgttggggtt tattactgca tgcaatctct acaaagtccg 300
tggacgttcg gccaagggac caaggtggaa atcaaacga 339

<210> 2258
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2258
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80
Ser Gly Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ser
85 90 95
Leu Gln Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110
Arg

<210> 2259
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2259
cagagcctcc tgcatagtaa tggatacaac tat 33

<210> 2260
<211> 11
<212> PRT
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<220>
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<400> 2260
Gln Ser Leu Leu His Ser Asn Gly Tyr Asn Tyr
1 5 10

<210> 2261
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2261
ttgggttct 9

<210> 2262
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2262
Leu Gly Ser
 1

<210> 2263
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2263
atgcaatctc tacaaagtcc gtggacg 27

<210> 2264
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2264
Met Gln Ser Leu Gln Ser Pro Trp Thr
 1 5

<210> 2265
<211> 378
<212> DNA
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<220>
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<400> 2265
caggtgcagc tggtggagtc tggtcctacg ctggtgaaac ccacacagaa cctcacgctg 60
acctgcacct tctctgggtt ctcactcacc actagtggag tgggtgtggg ctggatccgt 120
cagcccccag gaaaggccct ggagtggctt ggaatcattt attggaatga tgataaacgc 180
tacagcccat ctctaaagag caggctcacc atcagcaagg acacctccaa aaaccaggtg 240
gtccttacaa tgaccaacat ggaccctgtg gacacagcca catattactg tgcacacaga 300
agttatagca gtaactggcc ctactactac tacggtatgg acatttgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 2266
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2266
Gln Val Gln Leu Val Glu Ser Gly Pro Thr Leu Val Lys Pro Thr Gln
 1   5   10   15
Asn Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Thr Thr Ser
            20   25   30
Gly Val Gly Val Gly Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
        35   40   45
Trp Leu Gly Ile Ile Tyr Trp Asn Asp Asp Lys Arg Tyr Ser Pro Ser
    50   55   60
Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
65   70   75   80
Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
                85   90   95
Cys Ala His Arg Ser Tyr Ser Ser Asn Trp Pro Tyr Tyr Tyr Tyr Gly
            100   105   110
Met Asp Ile Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 2267
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2267
gggttctcac tcaccactag tggagtgggt   30

<210> 2268
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2268
Gly Phe Ser Leu Thr Thr Ser Gly Val Gly
 1   5   10

<210> 2269
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2269
atttattgga atgatgataa a 21

<210> 2270
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2270
Ile Tyr Trp Asn Asp Asp Lys
1 5

<210> 2271
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2271
gcacacagaa gttatagcag taactggccc tactactact acggtatgga catt 54

<210> 2272
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2272
Ala His Arg Ser Tyr Ser Ser Asn Trp Pro Tyr Tyr Tyr Tyr Gly Met
1 5 10 15
Asp Ile

<210> 2273
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2273
gacatcctga tgacccagtc tccctcttcc gtgtctgcat ctgttggaga cagagtcacc 60
atcacttgtc gggcgagtca gggtattaag aactggttag cctggtatca gcagaaacca 120
gggaaagccc ctaggctcct gatctatgat tcatccagtt tgcaaagtgg ggtctcatca 180
aggttcagcg gcagtggatt tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaacactt tcccattcac tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 2274
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2274
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Lys Asn Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Asp Ser Ser Ser Leu Gln Ser Gly Val Ser Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Phe 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 Thr Phe Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2275
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2275
cagggtatta agaactgg 18

<210> 2276
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2276
Gln Gly Ile Lys Asn Trp
 1   5

<210> 2277
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2277
gattcatcc   9

<210> 2278
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2278
Asp Ser Ser
 1

<210> 2279
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2279
caacaggcta acactttccc attcact   27

<210> 2280
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2280
Gln Gln Ala Asn Thr Phe Pro Phe Thr
 1   5

<210> 2281
<211> 378
<212> DNA
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<220>
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<400> 2281
caggtgcagc tggtggagtc tggtcctacg ctcgtgaaac ccactcagaa cctcacgctg 60
acctgcacct tctctgggtt ctcactcacc actactggag tgggtgtggg ctggatccgt 120
cagcccccag gaaaggccct ggagtggctt gcaatcattt attggaatga tgataaacgc 180
tacagcccat ctctaaagag cagggtcacc atcagcaagg acacctccaa aaaccaggtg 240
gtccttacaa tgaccaacat ggaccctgtg gacacagcca catattactg tgcacacaga 300
agttatagca gtagctggcc ctactactac tacggtatgg acgtttgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 2282
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2282
Gln Val Gln Leu Val Glu Ser Gly Pro Thr Leu Val Lys Pro Thr Gln
 1   5   10   15
Asn Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Thr Thr Thr
            20   25   30
Gly Val Gly Val Gly Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
        35   40   45
Trp Leu Ala Ile Ile Tyr Trp Asn Asp Asp Lys Arg Tyr Ser Pro Ser
    50   55   60
Leu Lys Ser Arg Val Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
65   70   75   80
Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
                85   90   95
Cys Ala His Arg Ser Tyr Ser Ser Ser Trp Pro Tyr Tyr Tyr Tyr Gly
            100   105   110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 2283
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2283
gggttctcac tcaccactac tggagtgggt 30

<210> 2284
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2284
Gly Phe Ser Leu Thr Thr Thr Gly Val Gly
1 5 10

<210> 2285
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2285
atttattgga atgatgataa a 21

<210> 2286
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2286
Ile Tyr Trp Asn Asp Asp Lys
1 5

<210> 2287
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2287
gcacacagaa gttatagcag tagctggccc tactactact acggtatgga cgtt 54

<210> 2288
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2288
Ala His Arg Ser Tyr Ser Ser Ser Trp Pro Tyr Tyr Tyr Tyr Gly Met
 1   5   10   15
Asp Val

<210> 2289
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2289
gacatccaga tgacccagtc tccctcttcc gtgtctgcct ctgttggaga cagagtcacc 60
atcacttgtc gggcgagtca cggtattagg aactggttag cctggtatca gcagaaacca 120
gagaaagccc ctaggctcct gatctatgat tcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcggtggatt tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaacactt tcccattcac tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 2290
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2290
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 His Gly Ile Arg Asn Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Glu Lys Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Asp Ser Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Gly Gly Phe 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 Thr Phe Pro Phe
                85   90   95

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

<210> 2291
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2291
cacggtatta ggaactgg 18

<210> 2292
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2292
His Gly Ile Arg Asn Trp
1 5

<210> 2293
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2293
gattcatcc 9

<210> 2294
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2294
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<210> 2295
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2295
caacaggcta acactttccc attcact 27

<210> 2296
<211> 9
<212> PRT
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<220>
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<400> 2296
Gln Gln Ala Asn Thr Phe Pro Phe Thr
1 5

<210> 2297
<211> 366
<212> DNA
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<220>
<223> synthetic

<400> 2297
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acctgcactg tctctggtgg ctccctcagt agttactact ggagctggat ccggcagttc 120
cccgataagg gactggagtg gattggattt atttattata ctggaagcag tgactacaat 180
ccctccctca agagtcgagt cagcatatca gtagacacgg ccaagaacca gttctccctg 240
aagctgagct ctgtgaccgc tgcggacacg gccatttatt actgtggtag agatttttgg 300
gcagctcact actactacta cggtatcgac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 2298
<211> 122
<212> PRT
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<220>
<223> synthetic

<400> 2298
Glu Val Gln Leu Val 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 Leu Ser Ser Tyr
20 25 30
Tyr Trp Ser Trp Ile Arg Gln Phe Pro Asp Lys Gly Leu Glu Trp Ile
35 40 45
Gly Phe Ile Tyr Tyr Thr Gly Ser Ser Asp Tyr Asn Pro Ser Leu Lys
50 55 60
Ser Arg Val Ser Ile Ser Val Asp Thr Ala 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 Gly
85 90 95
Arg Asp Phe Trp Ala Ala His Tyr Tyr Tyr Tyr Gly Ile Asp Val Trp
100 105 110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 2299
<211> 24
<212> DNA
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<220>
<223> synthetic

<400> 2299
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<210> 2300
<211> 8
<212> PRT
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<220>
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<400> 2300
Gly Gly Ser Leu Ser Ser Tyr Tyr
1 5

<210> 2301
<211> 21
<212> DNA
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<220>
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<400> 2301
atttattata ctggaagcag t 21

<210> 2302

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

<220>
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<400> 2302
Ile Tyr Tyr Thr Gly Ser Ser
 1   5

<210> 2303
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2303
ggtagagatt tttgggcagc tcactactac tactacggta tcgacgtc   48

<210> 2304
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2304
Gly Arg Asp Phe Trp Ala Ala His Tyr Tyr Tyr Tyr Gly Ile Asp Val
 1   5   10   15

<210> 2305
<211> 324
<212> DNA
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<220>
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<400> 2305
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaggtca gaccattacc acctttttaa attggtatca gcagagacca 120
gggaaagccc ctaaactcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtgattc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagactttg caacttacta ctgtcagcag agttacagtg ccccgttcac tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 2306
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2306
Asp Ile Leu 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 Gly Gln Thr Ile Thr Thr Phe
            20   25   30
Leu Asn Trp Tyr Gln Gln Arg Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Asp 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 Ser Tyr Ser Ala Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2307
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2307
cagaccatta ccaccttt 18

<210> 2308
<211> 6
<212> PRT
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<220>
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<400> 2308
Gln Thr Ile Thr Thr Phe
 1   5

<210> 2309
<211> 9
<212> DNA

<213> Artificial Sequence

<220>
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<400> 2309
gctgcatcc 9

<210> 2310
<211> 3
<212> PRT
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<220>
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<400> 2310
Ala Ala Ser
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<210> 2311
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2311
cagcagagtt acagtgcccc gttcact 27

<210> 2312
<211> 9
<212> PRT
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<220>
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<400> 2312
Gln Gln Ser Tyr Ser Ala Pro Phe Thr
 1   5

<210> 2313
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<212> DNA
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<220>
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<400> 2313
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acctgcacct tctctgggtt ctcattcagt actagtggag tgggtgtggg ctggatccgt 120
cagtccccag gaaaggccct ggagtggctt gcaatcattt attggaatga tgataagcgc 180
tacagcccat ctctgaagac caggctcacc atcaccaagg acacctccaa aaaccaggtg 240
gtccttacaa tgaccaacat ggaccctgtg gacacagcca catattactg tgcaaataga 300
agatatagca gcaactggcc ctactactac tacgggatgg acgtctgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 2314
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2314
Gln Val Gln Leu Val Glu Ser Gly Pro Thr Leu Val Lys Pro Thr Gln
 1   5   10   15
Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Phe Ser Thr Ser
            20   25   30
Gly Val Gly Val Gly Trp Ile Arg Gln Ser Pro Gly Lys Ala Leu Glu
        35   40   45
Trp Leu Ala Ile Ile Tyr Trp Asn Asp Asp Lys Arg Tyr Ser Pro Ser
    50   55   60
Leu Lys Thr Arg Leu Thr Ile Thr Lys Asp Thr Ser Lys Asn Gln Val
65   70   75   80
Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
                85   90   95
Cys Ala Asn Arg Arg Tyr Ser Ser Asn Trp Pro Tyr Tyr Tyr Tyr Gly
            100   105   110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 2315
<211> 30
<212> DNA
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<220>
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<400> 2315
gggttctcat tcagtactag tggagtgggt 30

<210> 2316
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2316
Gly Phe Ser Phe Ser Thr Ser Gly Val Gly
 1   5   10

<210> 2317
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2317
atttattgga atgatgataa g   21

<210> 2318
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2318
Ile Tyr Trp Asn Asp Asp Lys
 1   5

<210> 2319
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2319
gcaaatagaa gatatagcag caactggccc tactactact acgggatgga cgtc   54

<210> 2320
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2320
Ala Asn Arg Arg Tyr Ser Ser Asn Trp Pro Tyr Tyr Tyr Tyr Gly Met
 1   5   10   15
Asp Val

<210> 2321
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2321
gacatccaga tgacccagtc tccatcttcc gtgtctgcat ctgtgggaga cagagtcacc 60
atcacttgtc gggcgagtca gggtattcgc aactggttag cctggtatca gcagaaacca 120
gggaaacccc ctaagctcct gatctatgat gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccattaatag cctgcagcct 240
gaagattttg cgacttacta ttgtcaacag gctaacactt tcccattcac tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 2322
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2322
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Pro Pro Lys Leu Leu Ile
        35   40   45
Tyr Asp Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Thr Phe Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2323
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2323
cagggtattc gcaactgg 18

<210> 2324
<211> 6
<212> PRT
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<220>
<223> synthetic

<400> 2324
Gln Gly Ile Arg Asn Trp
1 5

<210> 2325
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2325
gatgcatcc 9

<210> 2326
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2326
Asp Ala Ser
1

<210> 2327
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2327
caacaggcta acactttccc attcact 27

<210> 2328
<211> 9
<212> PRT
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<220>
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<400> 2328
Gln Gln Ala Asn Thr Phe Pro Phe Thr
1 5

<210> 2329
<211> 378
<212> DNA
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<220>
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<400> 2329
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acctgcacct tctctgggtt ctcactcagc actagtggag tgggtgtggg ctggatccgt 120
cagcccccag gaaaggccct ggagtggctt ggaatcattt attggaatga tgataagcgc 180
tacagcccat ctctgaagag cagagtcacc atcaccaagg acacctccaa aaaccaggtg 240
gtccttacaa tgaccaacat ggaccctgtg gacacagcca catattactg tgcacacaga 300
agttatagca gcaactggcc ctactactac tacggtatga acgtctgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 2330
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2330
Gln Val Gln Leu Val Glu Ser Gly Pro Thr Leu Val Lys Pro Thr Gln
1 5 10 15
Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
20 25 30
Gly Val Gly Val Gly Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
35 40 45
Trp Leu Gly Ile Ile Tyr Trp Asn Asp Asp Lys Arg Tyr Ser Pro Ser
50 55 60
Leu Lys Ser Arg Val Thr Ile Thr Lys Asp Thr Ser Lys Asn Gln Val
65 70 75 80

Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
85 90 95
Cys Ala His Arg Ser Tyr Ser Ser Asn Trp Pro Tyr Tyr Tyr Tyr Gly
100 105 110
Met Asn Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 2331
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2331
gggttctcac tcagcactag tggagtgggt 30

<210> 2332
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2332
Gly Phe Ser Leu Ser Thr Ser Gly Val Gly
1 5 10

<210> 2333
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2333
atttattgga atgatgataa g 21

<210> 2334
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2334

Ile Tyr Trp Asn Asp Asp Lys
 1   5

<210> 2335
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2335
gcacacagaa gttatagcag caactggccc tactactact acggtatgaa cgtc   54

<210> 2336
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2336
Ala His Arg Ser Tyr Ser Ser Asn Trp Pro Tyr Tyr Tyr Tyr Gly Met
 1   5   10   15
Asn Val

<210> 2337
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2337
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atcacttgtc gggcgagtca gggtattcgc aactggttag cctggtatca gcagaaacca 120
gggaaagccc ccaacctcct gatctatgat gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaacagtt tcccattcac tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 2338
<211> 108
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2338

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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35                  40                  45
Tyr Asp Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Phe
                85                  90                  95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 2339
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2339
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<210> 2340
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2340

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Gln Gly Ile Arg Asn Trp
 1               5
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<210> 2341
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2341

gatgcatcc 9

<210> 2342
<211> 3
<212> PRT
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<220>
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<400> 2342
Asp Ala Ser
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<210> 2343
<211> 27
<212> DNA
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<220>
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<400> 2343
caacaggcta acagtttccc attcact 27

<210> 2344
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2344
Gln Gln Ala Asn Ser Phe Pro Phe Thr
1 5

<210> 2345
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2345
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acctgcacct tctctgggtt ctcactcagc actagtggag tgggtgtggg ctggatccgt 120
cagccccag gaaaggccct ggagtggctt ggaatcattt attggaatga tgataagcgc 180
tacaatccat ctctgaagag caggctcacc atcaccaagg acacctccaa aaaccaggtg 240

gtccttacaa tgaccaacat ggaccctgtg gacacagcca catattactg tgcacacaga 300
gcgtatagca gcagctggcc ctactacttc tacggtatgg acgtctgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 2346
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2346
Gln Val Gln Leu Val Glu Ser Gly Pro Thr Leu Val Lys Pro Thr Gln
 1   5   10   15
Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
            20   25   30
Gly Val Gly Val Gly Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
        35   40   45
Trp Leu Gly Ile Ile Tyr Trp Asn Asp Asp Lys Arg Tyr Asn Pro Ser
    50   55   60
Leu Lys Ser Arg Leu Thr Ile Thr Lys Asp Thr Ser Lys Asn Gln Val
65   70   75   80
Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
                85   90   95
Cys Ala His Arg Ala Tyr Ser Ser Ser Trp Pro Tyr Tyr Phe Tyr Gly
            100   105   110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 2347
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2347
gggttctcac tcagcactag tggagtgggt 30

<210> 2348
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2348
Gly Phe Ser Leu Ser Thr Ser Gly Val Gly

1 5 10

<210> 2349
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2349
atttattgga atgatgataa g 21

<210> 2350
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2350
Ile Tyr Trp Asn Asp Asp Lys
1 5

<210> 2351
<211> 54
<212> DNA
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<220>
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<400> 2351
gcacacagag cgtatagcag cagctggccc tactacttct acggtatgga cgtc 54

<210> 2352
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2352
Ala His Arg Ala Tyr Ser Ser Ser Trp Pro Tyr Tyr Phe Tyr Gly Met
1 5 10 15
Asp Val

<210> 2353
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2353
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atcacttgtc gggcgagtca gggtattcgc aactggttag cctggtatca gcagaaacca 120
gggaaagtcc ctaagctcct gatctatgat gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaacagtt tcccattcac tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 2354
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2354
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile
        35   40   45
Tyr Asp Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2355
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2355
cagggtattc gcaactgg 18

<210> 2356
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2356
Gln Gly Ile Arg Asn Trp
 1   5

<210> 2357
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2357
gatgcatcc   9

<210> 2358
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2358
Asp Ala Ser
 1

<210> 2359
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2359
caacaggcta acagtttccc attcact   27

<210> 2360
<211> 9
<212> PRT

<213> Artificial Sequence

<220>
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<400> 2360
Gln Gln Ala Asn Ser Phe Pro Phe Thr
 1   5

<210> 2361
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2361
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgtag cctctggatt cacctttagc agctattcca tgagctgggt ccgccaggct 120
ccagggaagg ggctagagtg ggtctcaact attagtggta gtggtaatag tatattctac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagag cacgctatat 240
ctacaaatga atagtctgag agtcgaggac acggccgtat attactgtgc aattgtagca 300
gctcgtcggg aggcccattt ctactactac tacaatatgg acgtctgggg ccaagggacc 360
acggtcaccg tctcctca   378

<210> 2362
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2362
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Ser Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Thr Ile Ser Gly Ser Gly Asn Ser Ile Phe Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Ser Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Ile Val Ala Ala Arg Arg Glu Ala His Phe Tyr Tyr Tyr Tyr Asn
            100   105   110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 2363
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2363
ggattcacct ttagcagcta ttcc 24

<210> 2364
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2364
Gly Phe Thr Phe Ser Ser Tyr Ser
1 5

<210> 2365
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2365
attagtggta gtggtaatag tata 24

<210> 2366
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2366
Ile Ser Gly Ser Gly Asn Ser Ile
1 5

<210> 2367
<211> 57

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2367
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<210> 2368
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2368
Ala Ile Val Ala Ala Arg Arg Glu Ala His Phe Tyr Tyr Tyr Tyr Asn
 1 5 10 15
Met Asp Val

<210> 2369
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2369
gacatccaga tgacccagtc tccatcctca ctgtctgcat ctgcaggaga cagagtcacc 60
atcacttgtc gggcgagtca gggcattagt aattatttag cctggtttca gcagaaacca 120
gggaaagccc ctaagtccct gatctatgct gcatccagtt tgcaaagtgg gatcccatca 180
aaattcagcg gcagtggatc tgggacagat ttcactctca ccatcagcaa cctgcagcct 240
gaagattttg caacttatta ctgccaacag tataatgatt accctctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 2370
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2370
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ala Gly
 1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Tyr

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            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 Ile Pro Ser Lys 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 Tyr Asn Asp Tyr Pro Leu
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 2371
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2371
cagggcatta gtaattat 18

<210> 2372
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2372
Gln Gly Ile Ser Asn Tyr
 1   5

<210> 2373
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2373
gctgcatcc 9

<210> 2374
<211> 3
<212> PRT
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<220>
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<400> 2374
Ala Ala Ser
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<210> 2375
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2375
caacagtata atgattaccc tctcact 27

<210> 2376
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 2376
Gln Gln Tyr Asn Asp Tyr Pro Leu Thr
 1 5

<210> 2377
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2377
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagacta 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag cataggctat 180
gcggactctg tgaagggccg attcatcatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatgg acagtctgag atctgaggac acggccttat attactgtgc aagagttctt 300
acctggaact tcgtttatga tgcttttgac atctggggcc aagggacaat ggtcaccgtc 360
tcttca 366

<210> 2378
<211> 122

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2378
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Ile Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asp Ser Leu Arg Ser Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Arg Val Leu Thr Trp Asn Phe Val Tyr Asp Ala Phe Asp Ile Trp
            100   105   110
Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 2379
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2379
ggattcacct ttgatgatta tgcc   24

<210> 2380
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2380
Gly Phe Thr Phe Asp Asp Tyr Ala
 1   5

<210> 2381
<211> 24
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 2381
attagttgga atagtggtag cata 24

<210> 2382
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2382
Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 2383
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2383
gcaagagttc ttacctggaa cttcgtttat gatgcttttg acatc 45

<210> 2384
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2384
Ala Arg Val Leu Thr Trp Asn Phe Val Tyr Asp Ala Phe Asp Ile
1 5 10 15

<210> 2385
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2385
gacatcgtga tgacccagtc tccgggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtattagc agcacctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtacattca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcac caatatggta gctcaccgta cacttttggc 300
caggggacca aggtggagat caaacga 327

<210> 2386
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2386
Asp Ile Val Met 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 Ile Ser Ser Thr
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Thr Phe Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln Tyr Gly Ser Ser Pro
                85   90   95
Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2387
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2387
cagagtatta gcagcaccta c 21

<210> 2388
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2388
Gln Ser Ile Ser Ser Thr Tyr
 1   5

<210> 2389
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2389
ggtacattc   9

<210> 2390
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2390
Gly Thr Phe
 1

<210> 2391
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2391
caccaatatg gtagctcacc gtacact   27

<210> 2392
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2392
His Gln Tyr Gly Ser Ser Pro Tyr Thr
 1   5

<210> 2393
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2393
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
gcctgtgcag cctctggatt cacctttagc agctatgcca tgatctgggt ccgccaggtt 120
ccagggatgg ggctggagtg ggtctcagct attagtggta gtggtggtaa cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgac agccgaggac acggccgtat attactgtgc gaagggagca 300
gctcgtggat actactatta cggtatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 2394
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2394
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ala Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Ala Met Ile Trp Val Arg Gln Val Pro Gly Met Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Ser Gly Ser Gly Gly Asn 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 Thr Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Gly Ala Ala Arg Gly Tyr Tyr Tyr Tyr Gly Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 2395
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2395
ggattcacct ttagcagcta tgcc 24

<210> 2396
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2396
Gly Phe Thr Phe Ser Ser Tyr Ala
1 5

<210> 2397
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2397
attagtggta gtggtggtaa caca 24

<210> 2398
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2398
Ile Ser Gly Ser Gly Gly Asn Thr
1 5

<210> 2399
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2399
gcgaagggag cagctcgtgg atactactat tacggtatgg acgtc 45

<210> 2400
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2400
Ala Lys Gly Ala Ala Arg Gly Tyr Tyr Tyr Tyr Gly Met Asp Val
 1   5   10   15

<210> 2401
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2401
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatggt gcgtccagtt tacaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tggcacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacaa gattacaatt acccattcac tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 2402
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2402
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
            20   25   30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Asp Tyr Asn Tyr Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg

100 105

<210> 2403
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2403
cagggcatta gaaatgat 18

<210> 2404
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2404
Gln Gly Ile Arg Asn Asp
1 5

<210> 2405
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2405
ggtgcgtcc 9

<210> 2406
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2406
Gly Ala Ser
1

<210> 2407

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

<220>
<223> synthetic

<400> 2407
ctacaagatt acaattaccc attcact 27

<210> 2408
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2408
Leu Gln Asp Tyr Asn Tyr Pro Phe Thr
1 5

<210> 2409
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2409
caggtgcagc tggtggagtc tggtcctacg ctggtgaaac ccacacagac cctcacgctg 60
acctgcacct tctctgggtt ctcactcagc actagtggag tgggtgtggg ctggatccgt 120
cagcccccag gaaaggccct ggagtggctt ggaatcattt attggaatga tgataagcgc 180
tacagcccat ctctgaagag cagactcgcc atcaccaagg acacctccaa aaaccaggtg 240
gtccttacaa tgaccaacat ggaccctgtg gacacagcca catattactg tgcacacaga 300
agttatagca gcaactggcc ctactactac tacggtatga acgtctgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 2410
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2410
Gln Val Gln Leu Val Glu Ser Gly Pro Thr Leu Val Lys Pro Thr Gln
1 5 10 15
Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser

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            20                  25                  30
Gly Val Gly Val Gly Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
        35                  40                  45
Trp Leu Gly Ile Ile Tyr Trp Asn Asp Asp Lys Arg Tyr Ser Pro Ser
    50                  55                  60
Leu Lys Ser Arg Leu Ala Ile Thr Lys Asp Thr Ser Lys Asn Gln Val
65                  70                  75                  80
Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
                85                  90                  95
Cys Ala His Arg Ser Tyr Ser Ser Asn Trp Pro Tyr Tyr Tyr Tyr Gly
            100                 105                 110
Met Asn Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120                 125
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<210> 2411
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2411
gggttctcac tcagcactag tggagtgggt 30

<210> 2412
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2412
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Gly Phe Ser Leu Ser Thr Ser Gly Val Gly
 1               5                  10
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<210> 2413
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2413
atttattgga atgatgataa g 21

<210> 2414
<211> 7

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2414
Ile Tyr Trp Asn Asp Asp Lys
 1   5

<210> 2415
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2415
gcacacagaa gttatagcag caactggccc tactactact acggtatgaa cgtc   54

<210> 2416
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2416
Ala His Arg Ser Tyr Ser Ser Asn Trp Pro Tyr Tyr Tyr Tyr Gly Met
 1   5   10   15
Asn Val

<210> 2417
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2417
gacatccaga tgacccagtc tccatcttcc gtgtctgcct ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca gggtattcgc aattggttag cctggtatca gcagaaacca 120
gggaaagccc ccaacctcct gatctatgat gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaacagtt tcccattcac tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 2418
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2418
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Asp Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ser Phe Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2419
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2419
cagggtattc gcaattgg   18

<210> 2420
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2420
Gln Gly Ile Arg Asn Trp
 1   5

<210> 2421
<211> 9

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2421
gatgcatcc 9

<210> 2422
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2422
Asp Ala Ser
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<210> 2423
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2423
caacaggcta acagtttccc attcact 27

<210> 2424
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2424
Gln Gln Ala Asn Ser Phe Pro Phe Thr
1 5

<210> 2425
<211> 375
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2425
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt agctatggca tgcactgggt ccgccagggt 120
ccaggcaagg ggctggagtg ggtggcactt atatcatatg atggaagtaa taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agttgaggac acggctctgt tttactgtgt gaaagaccgg 300
gagatttttg gagtggttag gtactactac ggtatggacg tctggggcca agggaccacg 360
gtcaccgtct cctca 375

<210> 2426
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2426
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Gly Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Leu Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Leu Phe Tyr Cys
                85   90   95
Val Lys Asp Arg Glu Ile Phe Gly Val Val Arg Tyr Tyr Tyr Gly Met
            100   105   110
Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 2427
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2427
ggattcacct tcagtagcta tggc 24

<210> 2428
<211> 8
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 2428
Gly Phe Thr Phe Ser Ser Tyr Gly
 1   5

<210> 2429
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2429
atatcatatg atggaagtaa taaa   24

<210> 2430
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2430
Ile Ser Tyr Asp Gly Ser Asn Lys
 1   5

<210> 2431
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2431
gtgaaagacc gggagatttt tggagtggtt aggtactact acggtatgga cgtc   54

<210> 2432
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2432
Val Lys Asp Arg Glu Ile Phe Gly Val Val Arg Tyr Tyr Tyr Gly Met
 1   5   10   15
Asp Val

<210> 2433
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2433
gacatcctga tgacccagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtca gagcctcctg catggtaatg gatacaacta tttggattgg 120
tacctgcaga agccagggca gtctccacat ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggct cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcagagtgg aggctgagga tgttggggtt tattactgca tgcaagctct acaaactcct 300
ctcactttcg gcggagggac caaggtggag atcaaacga   339

<210> 2434
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2434
Asp Ile Leu Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Gly
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro His Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Leu Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
                85   90   95
Leu Gln Thr Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105   110
Arg

<210> 2435

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

<220>
<223> synthetic

<400> 2435
cagagcctcc tgcatggtaa tggatacaac tat 33

<210> 2436
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2436
Gln Ser Leu Leu His Gly Asn Gly Tyr Asn Tyr
1 5 10

<210> 2437
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2437
ttgggttct 9

<210> 2438
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2438
Leu Gly Ser
1

<210> 2439
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2439
atgcaagctc tacaaactcc tctcact 27

<210> 2440
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2440
Met Gln Ala Leu Gln Thr Pro Leu Thr
1 5

<210> 2441
<211> 384
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2441
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agtaactatt ggagctggat ccggcagccc 120
ccagggaagg gactggagtg gattgggtat atctattcca gtgggagcac caactacaac 180
ccctccctca ggagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aacctgagct ctgtgaccgc tgcggacacg gccgtgtatt actgtgcgag agatgggttt 300
gattactatg gttcggggag ttcaaactac ttctactacg gtatggacgt ctggggccaa 360
gggaccacgg tcaccgtctc ctca 384

<210> 2442
<211> 128
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2442
Glu Val Gln Leu Val 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 Asn
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 Ser Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Arg

```
    50                  55                  60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65                  70                  75                  80
Asn Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Asp Gly Phe Asp Tyr Tyr Gly Ser Gly Ser Ser Asn Tyr Phe Tyr
            100                 105                 110
Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120                 125
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<210> 2443
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2443
ggtggctcca tcagtagtaa ctat 24

<210> 2444
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2444
Gly Gly Ser Ile Ser Ser Asn Tyr
 1   5

<210> 2445
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2445
atctattcca gtgggagcac c 21

<210> 2446
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2446
Ile Tyr Ser Ser Gly Ser Thr
 1   5

<210> 2447
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2447
gcgagagatg ggtttgatta ctatggttcg gggagttcaa actacttcta ctacggtatg 60
gacgtc   66

<210> 2448
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2448
Ala Arg Asp Gly Phe Asp Tyr Tyr Gly Ser Gly Ser Ser Asn Tyr Phe
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 2449
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2449
gacatcgtga tgacccagtc tccactctcc ctgcccgtca cccctggaga gccggccttc 60
atctcctgca ggtctagtca gagcctcctg cgtagtaatg gatacaacta tttggattgg 120
ctcctgcaga ggccagggca gtctccacaa ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcagagtgg aggctgagga tgttgggatt tattactgta tgcaaactct acagactccg 300
tggacgttcg gccaagggac caaggtggag atcaaacga   339

<210> 2450
<211> 113

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2450
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Phe Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Arg Ser
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Leu Leu Gln Arg Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Ile Tyr Tyr Cys Met Gln Thr
                85   90   95
Leu Gln Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110
Arg

<210> 2451
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2451
cagagcctcc tgcgtagtaa tggatacaac tat   33

<210> 2452
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2452
Gln Ser Leu Leu Arg Ser Asn Gly Tyr Asn Tyr
 1   5   10

<210> 2453
<211> 9
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 2453
ttgggttct 9

<210> 2454
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2454
Leu Gly Ser
1

<210> 2455
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2455
atgcaaactc tacagactcc gtggacg 27

<210> 2456
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2456
Met Gln Thr Leu Gln Thr Pro Trp Thr
1 5

<210> 2457
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2457
caggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcaa cctctggatt cacctttagc aactatgcca tgatctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggta ctggtgttag cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaacaa cacgctgttt 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaaattggc 300
tacggtgact tctttgacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 2458
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2458
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Thr Ser Gly Phe Thr Phe Ser Asn Tyr
 20 25 30
Ala Met Ile Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
Ser Ala Ile Ser Gly Thr Gly Val Ser Thr Tyr Tyr Ala Asp Ser Val
 50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Asn Asn Thr 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 Lys Ile Gly Tyr Gly Asp Phe Phe Asp Tyr Trp Gly Gln Gly Thr
 100 105 110
Leu Val Thr Val Ser Ser
 115

<210> 2459
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2459
ggattcacct ttagcaacta tgcc 24

<210> 2460
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2460
Gly Phe Thr Phe Ser Asn Tyr Ala
 1   5

<210> 2461
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2461
attagtggta ctggtgttag caca   24

<210> 2462
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2462
Ile Ser Gly Thr Gly Val Ser Thr
 1   5

<210> 2463
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2463
gcgaaaattg gctacggtga cttctttgac tac   33

<210> 2464
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2464

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Ala Lys Ile Gly Tyr Gly Asp Phe Phe Asp Tyr
 1               5                  10
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<210> 2465
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2465
gacatccaga tgacccagtc tccatcctcc ctgtctacat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta cccctcccac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 2466
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2466

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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Thr Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
            20                  25                  30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Pro
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 2467
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2467
cagagcatta gcagctat 18

<210> 2468
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2468
Gln Ser Ile Ser Ser Tyr
1 5

<210> 2469
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2469
gctgcatcc 9

<210> 2470
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2470
Ala Ala Ser
1

<210> 2471
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2471
caacagagtt acagtacccc tcccact 27

<210> 2472
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2472
Gln Gln Ser Tyr Ser Thr Pro Pro Thr
 1   5

<210> 2473
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2473
caggtgcagc tggtggagtc tggtcctacg ctggtgaaac ccacacagaa cctcacgctg 60
acctgcacct tctctgggtt ctcactcacc actagtggag tgggtgtggg ctggatccgt 120
cagccccag gaaaggccct ggagtggctt ggaatcattt attggaatga tgataaacgc 180
tatagcccat ctctaaagag caggctcacc atcagcaagg acacctccaa aaaccaggtg 240
gtccttacac tgaccaacat gggccctgtg gacacagcca catattactg tgcacacaga 300
agttatagca ctaactggcc ctactactac tacggtatgg acgtttgggg ccaggggacc 360
acggtcaccg tctcctca   378

<210> 2474
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2474
Gln Val Gln Leu Val Glu Ser Gly Pro Thr Leu Val Lys Pro Thr Gln
 1   5   10   15
Asn Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Thr Thr Ser
            20   25   30
Gly Val Gly Val Gly Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
        35   40   45
Trp Leu Gly Ile Ile Tyr Trp Asn Asp Asp Lys Arg Tyr Ser Pro Ser
    50   55   60
Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
65   70   75   80
Val Leu Thr Leu Thr Asn Met Gly Pro Val Asp Thr Ala Thr Tyr Tyr
                85   90   95
Cys Ala His Arg Ser Tyr Ser Thr Asn Trp Pro Tyr Tyr Tyr Tyr Gly

100 105 110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 2475
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2475
gggttctcac tcaccactag tggagtgggt 30

<210> 2476
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2476
Gly Phe Ser Leu Thr Thr Ser Gly Val Gly
1 5 10

<210> 2477
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2477
atttattgga atgatgataa a 21

<210> 2478
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2478
Ile Tyr Trp Asn Asp Asp Lys
1 5

<210> 2479
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2479
gcacacagaa gttatagcac taactggccc tactactact acggtatgga cgtt 54

<210> 2480
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2480
Ala His Arg Ser Tyr Ser Thr Asn Trp Pro Tyr Tyr Tyr Tyr Gly Met
1 5 10 15
Asp Val

<210> 2481
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2481
gacatccaga tgacccagtc tccctcttcc gtgtctgcat ctgttggaga cagagtcacc 60
atcacttgtc gggcgagtca gggtattagg aactggttag cctggtatca gcagaaacca 120
gggaaagccc ctaggctcct gatctatgat tcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatt tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaacactt tcccattcac tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 2482
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2482

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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Arg Leu Leu Ile
        35                  40                  45
Tyr Asp Ser Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Phe 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 Thr Phe Pro Phe
                85                  90                  95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 2483
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2483
cagggtatta ggaactgg 18

<210> 2484
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2484
Gln Gly Ile Arg Asn Trp
 1   5

<210> 2485
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2485
gattcatcc 9

<210> 2486

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

<220>
<223> synthetic

<400> 2486
Asp Ser Ser
 1

<210> 2487
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2487
caacaggcta acactttccc attcact 27

<210> 2488
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2488
Gln Gln Ala Asn Thr Phe Pro Phe Thr
 1   5

<210> 2489
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2489
caggtgcagc tggtggagtc tggtcctacg ctggtgaaac ccacacagaa cctcacgctg 60
acctgcacct tctctgggtt ctcactcacc actagtggag tgggtgtggg ctggatccgt 120
cagccccag gaaaggccct ggagtggctt ggaatcattt attggaatga tgataaacgc 180
tacagtccat ctctaaagag caggctcacc atcaacaagg acacctccaa aaaccagctg 240
gtccttacaa tgaccaacat ggaccctgtg gacacagcca catattactg tgcacacaga 300
agttatagca ctaactggcc ctactactac tacggtatgg acgtttgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 2490
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2490
Gln Val Gln Leu Val Glu Ser Gly Pro Thr Leu Val Lys Pro Thr Gln
 1   5   10   15
Asn Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Thr Thr Ser
            20   25   30
Gly Val Gly Val Gly Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
        35   40   45
Trp Leu Gly Ile Ile Tyr Trp Asn Asp Asp Lys Arg Tyr Ser Pro Ser
    50   55   60
Leu Lys Ser Arg Leu Thr Ile Asn Lys Asp Thr Ser Lys Asn Gln Leu
65   70   75   80
Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
                85   90   95
Cys Ala His Arg Ser Tyr Ser Thr Asn Trp Pro Tyr Tyr Tyr Tyr Gly
            100   105   110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 2491
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2491
gggttctcac tcaccactag tggagtgggt   30

<210> 2492
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2492
Gly Phe Ser Leu Thr Thr Ser Gly Val Gly
 1   5   10

<210> 2493
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2493
atttattgga atgatgataa a 21

<210> 2494
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2494
Ile Tyr Trp Asn Asp Asp Lys
1 5

<210> 2495
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2495
gcacacagaa gttatagcac taactggccc tactactact acggtatgga cgtt 54

<210> 2496
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2496
Ala His Arg Ser Tyr Ser Thr Asn Trp Pro Tyr Tyr Tyr Tyr Gly Met
1 5 10 15
Asp Val

<210> 2497
<211> 324

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2497
gacatccaga tgacccagtc tccctcttcc gtgtctgcat ctgttggaga cagagtcacc 60
atcacttgtc gggcgagtca gggtattagg aactggttag cctggtatca gcagaaacct 120
gggaaagccc ctaggctcct gatctatgat tcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatt tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaacactt tcccattcac tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 2498
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2498
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Asp Ser Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Phe 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 Thr Phe Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2499
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2499
cagggtatta ggaactgg 18

<210> 2500
<211> 6

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2500
Gln Gly Ile Arg Asn Trp
 1   5

<210> 2501
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2501
gattcatcc   9

<210> 2502
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2502
Asp Ser Ser
 1

<210> 2503
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2503
caacaggcta acactttccc attcact   27

<210> 2504
<211> 9
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2504
Gln Gln Ala Asn Thr Phe Pro Phe Thr
 1   5

<210> 2505
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2505
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cagctttagc agctatgcca tgagctgggt ccgccaggct 120
ccagggaagg gtctggaatg ggtctcaggt attagtggca gtggtggtag cacattaaac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa aacgctgtat 240
ctgcaaatga gcagcctgag agccgaggac acggccgtat attactgtgc gaaagtcttt 300
gactatagct acttctacta cggtatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca   366

<210> 2506
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2506
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 Ser Phe Ser Ser Tyr
            20   25   30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Gly Ser Gly Gly Ser Thr Leu Asn Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Lys Thr Leu Tyr
65   70   75   80
Leu Gln Met Ser Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Val Phe Asp Tyr Ser Tyr Phe Tyr Tyr Gly Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 2507

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

<220>
<223> synthetic

<400> 2507
ggattcagct ttagcagcta tgcc 24

<210> 2508
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2508
Gly Phe Ser Phe Ser Ser Tyr Ala
1 5

<210> 2509
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2509
attagtggca gtggtggtag caca 24

<210> 2510
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2510
Ile Ser Gly Ser Gly Gly Ser Thr
1 5

<210> 2511
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2511
gcgaaagtct ttgactatag ctacttctac tacggtatgg acgtc 45

<210> 2512
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2512
Ala Lys Val Phe Asp Tyr Ser Tyr Phe Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 2513
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2513
gacatcgtga tgacccagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtca gagcctcctg catagtagtg gatacaacta tttggattgg 120
tacctgcaga ggccagggca gtctccacag ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcagagtgg aggctgagga tgttggggtt tattactgct tgcaagttct acaaactccg 300
tacacttttg gccaggggac caaggtggag atcaaacga 339

<210> 2514
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2514
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
20 25 30
Ser Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Leu Gln Val
85 90 95
Leu Gln Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110
Arg

<210> 2515
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2515
cagagcctcc tgcatagtag tggatacaac tat 33

<210> 2516
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2516
Gln Ser Leu Leu His Ser Ser Gly Tyr Asn Tyr
1 5 10

<210> 2517
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2517
ttgggttct 9

<210> 2518
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2518
Leu Gly Ser
 1

<210> 2519
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2519
ttgcaagttc tacaaactcc gtacact 27

<210> 2520
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2520
Leu Gln Val Leu Gln Thr Pro Tyr Thr
 1 5

<210> 2521
<211> 384
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2521
caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt aattactact ggagctggat ccggcagcac 120
ccagggaagg gactggagtg gattgggtat atctattaca gtgggagcac caactacaaa 180
ccctccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aaactgagtt ctgtgaccgc tgcggacacg gccgtgtatt actgtgcgag agataccatt 300
gattactatg gttcggggag ttcaagctac tactactacg gtatggacat ctggggccaa 360
gggaccacgg tcaccgtctc ctca 384

<210> 2522
<211> 128
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2522
Gln Val Gln Leu Val 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 His Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Lys Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Thr Ile Asp Tyr Tyr Gly Ser Gly Ser Ser Ser Tyr Tyr Tyr
            100   105   110
Tyr Gly Met Asp Ile Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 2523
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2523
ggtggctcca tcagtaatta ctac   24

<210> 2524
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2524
Gly Gly Ser Ile Ser Asn Tyr Tyr
 1   5

<210> 2525
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2525
atctattaca gtgggagcac c 21

<210> 2526
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2526
Ile Tyr Tyr Ser Gly Ser Thr
1 5

<210> 2527
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2527
gcgagagata ccattgatta ctatggttcg gggagttcaa gctactacta ctacggtatg 60
gacatc 66

<210> 2528
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2528
Ala Arg Asp Thr Ile Asp Tyr Tyr Gly Ser Gly Ser Ser Ser Tyr Tyr
1 5 10 15
Tyr Tyr Gly Met Asp Ile
20

<210> 2529
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2529
gacatcgtga tgacccagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtca gagcctcctg catagtaatg gatacaacta tttggattgg 120
tacctgcaga agccagggca gtctccacag ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcggagtgg aggctgagga tgttggggtt tattactgca tgcaatctct acaaagtccg 300
tggacgttcg gccaagggac caaggtggag atcaaacga 339

<210> 2530
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2530
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Gly Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ser
                85   90   95
Leu Gln Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110
Arg

<210> 2531
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2531
cagagcctcc tgcatagtaa tggatacaac tat 33

<210> 2532
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2532
Gln Ser Leu Leu His Ser Asn Gly Tyr Asn Tyr
 1   5   10

<210> 2533
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2533
ttgggttct   9

<210> 2534
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2534
Leu Gly Ser
 1

<210> 2535
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2535
atgcaatctc tacaaagtcc gtggacg   27

<210> 2536
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2536

Met Gln Ser Leu Gln Ser Pro Trp Thr
 1   5

<210> 2537
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2537
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctgatgg ctccatcagt acttactact ggagctggat ccggcagccc 120
ccaggaaagg gactggagtg gattgggtat atctattaca gtgggagaac caactacaac 180
ccctccctca agagtcgagt caccatttca gttgacacgt ccaagaacca gttctccctg 240
aagctgacct ctgtgaccgc tgcggacacg gccgtatatt actgtgcgag aggtgggagc 300
agccctaact attactactt cggtatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca   366

<210> 2538
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2538
Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Asp Gly Ser Ile Ser Thr 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 Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Gly Ser Ser Pro Asn Tyr Tyr Tyr Phe Gly Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 2539
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2539
gatggctcca tcagtactta ctac 24

<210> 2540
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2540
Asp Gly Ser Ile Ser Thr Tyr Tyr
1 5

<210> 2541
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2541
atctattaca gtgggagaac c 21

<210> 2542
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2542
Ile Tyr Tyr Ser Gly Arg Thr
1 5

<210> 2543
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2543
gcgagaggtg ggagcagccc taactattac tacttcggta tggacgtc 48

<210> 2544
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2544
Ala Arg Gly Gly Ser Ser Pro Asn Tyr Tyr Tyr Phe Gly Met Asp Val
1 5 10 15

<210> 2545
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2545
gacatcctga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca tgtccagcca tactatttta tacagctcca acaataagaa gtacttagct 120
tggtaccagc agaaaccagg acagcctcct aagctgctca tttactgggc atctacccgg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcaccagcc tgcaggctga agatgtggca gtttattact gtcaacaata ctataatact 300
ccgtggacgt tcggccaagg gaccaaggtg gagatcaaac ga 342

<210> 2546
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2546
Asp Ile Leu Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15
Glu Arg Ala Thr Ile Asn Cys Met Ser Ser His Thr Ile Leu Tyr Ser
20 25 30
Ser Asn Asn Lys Lys Tyr Leu Ala 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 Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80
Ile Thr Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln

85 90 95
Tyr Tyr Asn Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110
Lys Arg

<210> 2547
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2547
catactattt tatacagctc caacaataag aagtac 36

<210> 2548
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2548
His Thr Ile Leu Tyr Ser Ser Asn Asn Lys Lys Tyr
1 5 10

<210> 2549
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2549
tgggcatct 9

<210> 2550
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2550
Trp Ala Ser

1

<210> 2551
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2551
caacaatact ataatactcc gtggacg 27

<210> 2552
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2552
Gln Gln Tyr Tyr Asn Thr Pro Trp Thr
1 5

<210> 2553
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2553
gaggtgcagc tggtggagtc tggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agttactact ggagctggat ccggcagccc 120
ccagggaagg gactggagtg gattgggtat atctattaca gtgggaacac caactacaac 180
ccctccctca agagtcgagt caccatatct gtcgacacgt ccaagaacca gttctccctg 240
aagctgacct ctgtgaccgc tgcggacacg gccgtgtatt actgtgcgag agattcttat 300
tacgattttt ggagtggtta ttataccctc tggggccagg gaaccacggt caccgtctcc 360
tca 363

<210> 2554
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2554
Glu Val Gln Leu Val 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 Asn 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 Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Ser Tyr Tyr Asp Phe Trp Ser Gly Tyr Tyr Thr Leu Trp Gly
            100   105   110
Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 2555
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2555
ggtggctcca tcagtagtta ctac   24

<210> 2556
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2556
Gly Gly Ser Ile Ser Ser Tyr Tyr
 1   5

<210> 2557
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2557

atctattaca gtgggaacac c 21

<210> 2558
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2558
Ile Tyr Tyr Ser Gly Asn Thr
1 5

<210> 2559
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2559
gcgagagatt cttattacga tttttggagt ggttattata ccctc 45

<210> 2560
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2560
Ala Arg Asp Ser Tyr Tyr Asp Phe Trp Ser Gly Tyr Tyr Thr Leu
1 5 10 15

<210> 2561
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2561
gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gtgggccacc 60
atcaactgca agtccagcca gagtattttg ttcagctcca acaataagaa ctacttagct 120
tggtaccagc agaaaccagg acagcctcct aagttgctca tttactgggc atctacccgg 180
gaatccgggg tccctgaccg cttcagtggc agcgggtctg ggacagattt cactctcacc 240

atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttataatact 300
cctcggacgt tcggccaagg gaccaaggtg gagatcaaac ga 342

<210> 2562
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2562
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15
Glu Trp Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Ile Leu Phe Ser
20 25 30
Ser Asn Asn Lys Asn Tyr Leu Ala 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 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 Tyr Cys Gln Gln
85 90 95
Tyr Tyr Asn Thr Pro Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110
Lys Arg

<210> 2563
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2563
cagagtattt tgttcagctc caacaataag aactac 36

<210> 2564
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2564
Gln Ser Ile Leu Phe Ser Ser Asn Asn Lys Asn Tyr
1 5 10

<210> 2565
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2565
tgggcatct 9

<210> 2566
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2566
Trp Ala Ser
1

<210> 2567
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2567
cagcaatatt ataatactcc tcggacg 27

<210> 2568
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2568
Gln Gln Tyr Tyr Asn Thr Pro Arg Thr
1 5

<210> 2569
<211> 357

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2569
gaggtgcagc tggtggagtc tgggggaggc gtggtccagt ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt gactatggca tgcactgggt ccggcaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atttggtatg atggaaataa aaaagactgt 180
gtagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctagaaatga atagcctgag agccgaggac acggccgtgt attactgtgc gagaatgagg 300
tataactgga actcatttga ctactggggc cagggaaccc tggtcaccgt ctcctca 357

<210> 2570
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2570
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Ser Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp 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 Asn Lys Lys Asp Cys Val 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 Glu Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Met Arg Tyr Asn Trp Asn Ser Phe Asp Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 2571
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2571
ggattcacct tcagtgacta tggc 24

<210> 2572
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2572
Gly Phe Thr Phe Ser Asp Tyr Gly
 1   5

<210> 2573
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2573
atttggtatg atggaaataa aaaa   24

<210> 2574
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2574
Ile Trp Tyr Asp Gly Asn Lys Lys
 1   5

<210> 2575
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2575
gcgagaatga ggtataactg gaactcattt gactac   36

<210> 2576
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2576
Ala Arg Met Arg Tyr Asn Trp Asn Ser Phe Asp Tyr
 1   5   10

<210> 2577
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2577
gacatccaga tgacccagtc tccatcttcc ctgtctgcat ctgaaggaga cagagtcacc 60
atcacttgcc aggcgagtca ggtcactcac aattacttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatattt ctgtcaacag tatgttaatt tccctctcac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 2578
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2578
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Glu Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Val Thr His 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 Ile Ala Thr Tyr Phe Cys Gln Gln Tyr Val Asn Phe Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2579
<211> 18

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2579
caggtcactc acaattac 18

<210> 2580
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2580
Gln Val Thr His Asn Tyr
1 5

<210> 2581
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2581
gatgcatcc 9

<210> 2582
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2582
Asp Ala Ser
1

<210> 2583
<211> 27
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2583
caacagtatg ttaatttccc tctcact 27

<210> 2584
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2584
Gln Gln Tyr Val Asn Phe Pro Leu Thr
 1   5

<210> 2585
<211> 351
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2585
gaggtgcagc tggtggagtc tggagctgaa atgaagaagc ctggggcctc agtgaaggtc 60
tcctgtaagg cctctggtca caccttcatc agttatggta tcagctgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggatgg accagccctt acaatggtaa cacaaactat 180
gcacagaagt tccagggcag agtcaccatg accacagaca catccacgaa tacaacctac 240
atggaaatga ggagcctgag atctgacgac acggccgtat attactgtac gagaggctgg 300
ttcgatgctt ttgatatctg gggtcaaggg acaatggtca ccgtctcctc a 351

<210> 2586
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2586
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Met Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly His Thr Phe Ile Ser Tyr
            20   25   30
Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Trp Thr Ser Pro Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Asn Thr Thr Tyr

65 70 75 80
Met Glu Met Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Thr Arg Gly Trp Phe Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr Met
100 105 110
Val Thr Val Ser Ser
115

<210> 2587
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2587
ggtcacacct tcatcagtta tggt 24

<210> 2588
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2588
Gly His Thr Phe Ile Ser Tyr Gly
1 5

<210> 2589
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2589
accagccctt acaatggtaa caca 24

<210> 2590
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2590
Thr Ser Pro Tyr Asn Gly Asn Thr
 1   5

<210> 2591
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2591
acgagaggct ggttcgatgc ttttgatatc   30

<210> 2592
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2592
Thr Arg Gly Trp Phe Asp Ala Phe Asp Ile
 1   5   10

<210> 2593
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2593
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atctcttgcc ggtcacgtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtgtatc tggggcagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caactttcta ctgtcaacag agttacacta cccctccgac gttcggccaa 300
gggaccaagg tggaaatcaa acga   324

<210> 2594
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2594
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 Ser Cys Arg Ser Arg Gln Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Val Ser Gly Ala Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Phe Tyr Cys Gln Gln Ser Tyr Thr Thr Pro Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2595
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2595
cagagcatta gcagctat 18

<210> 2596
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2596
Gln Ser Ile Ser Ser Tyr
 1   5

<210> 2597
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2597
gctgcatcc 9

<210> 2598
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2598
Ala Ala Ser
 1

<210> 2599
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2599
caacagagtt acactacccc tccgacg 27

<210> 2600
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2600
Gln Gln Ser Tyr Thr Thr Pro Pro Thr
 1   5

<210> 2601
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2601
gaggtgcagc tggtggagtc tggagcagag gtgaaaaagc ccggggagtc tctgaagatc 60
tcctgtaagg gttctggata cacctttacc aactactgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatggggatc atctatccag gtgactctga gaccagatac 180
agtccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatcag caccgcctac 240
ctgcagtgga gcagcctgaa ggcctcggac accgccttat tttactgtgc gagacttggg 300

aggttcttcg acaactacta cgctatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 2602
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2602
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Asn Tyr
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Tyr Pro Gly Asp Ser Glu Thr Arg Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Leu Phe Tyr Cys
                85   90   95
Ala Arg Leu Gly Arg Phe Phe Asp Asn Tyr Tyr Ala Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 2603
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2603
ggatacacct ttaccaacta ctgg 24

<210> 2604
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2604
Gly Tyr Thr Phe Thr Asn Tyr Trp
 1   5

<210> 2605
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2605
atctatccag gtgactctga gacc 24

<210> 2606
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2606
Ile Tyr Pro Gly Asp Ser Glu Thr
1 5

<210> 2607
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2607
gcgagacttg ggaggttctt cgacaactac tacgctatgg acgtc 45

<210> 2608
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2608
Ala Arg Leu Gly Arg Phe Phe Asp Asn Tyr Tyr Ala Met Asp Val
1 5 10 15

<210> 2609
<211> 324

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2609
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcatt 60
atcacttgtc gggcaagtca gagcattagc acctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatggt gcgtccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaattt 240
gcagattttg aaaattacta ctgtcaacag acttacagta tcccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 2610
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2610
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Ile Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Thr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Phe
65   70   75   80
Ala Asp Phe Glu Asn Tyr Tyr Cys Gln Gln Thr Tyr Ser Ile Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2611
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2611
cagagcatta gcacctat 18

<210> 2612
<211> 6

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2612
Gln Ser Ile Ser Thr Tyr
 1   5

<210> 2613
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2613
ggtgcgtcc   9

<210> 2614
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2614
Gly Ala Ser
 1

<210> 2615
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2615
caacagactt acagtatccc gtacact   27

<210> 2616
<211> 9
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2616
Gln Gln Thr Tyr Ser Ile Pro Tyr Thr
 1   5

<210> 2617
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2617
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaagtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt gactatggaa tgcactgggt ccggcaggct 120
ccaggcaagg gactggagtg ggtggcagtt atttggtatg atgggaataa aaaagactgt 180
gtagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacactgtat 240
cttcaaatga atagcctgag agccgaggac acggctgtgt attactgtgc gagaatgagg 300
tataactgga actcgtttga ctgctggggc cagggaaccc tggtcaccgt ctcctca   357

<210> 2618
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2618
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Lys
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp 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 Asn Lys Lys Asp Cys Val 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 Met Arg Tyr Asn Trp Asn Ser Phe Asp Cys Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 2619
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2619
ggattcacct tcagtgacta tgga 24

<210> 2620
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2620
Gly Phe Thr Phe Ser Asp Tyr Gly
1 5

<210> 2621
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2621
atttggtatg atgggaataa aaaa 24

<210> 2622
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2622
Ile Trp Tyr Asp Gly Asn Lys Lys
1 5

<210> 2623
<211> 36
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2623
gcgagaatga ggtataactg gaactcgttt gactgc 36

<210> 2624
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2624
Ala Arg Met Arg Tyr Asn Trp Asn Ser Phe Asp Cys
 1   5   10

<210> 2625
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2625
gacatccaga tgacccagtc tccatcctcc ctgtatgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcgagtca ggactctcac aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg agtcccatca 180
aggttcagtg gaagtggttc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatattt ctgtcaacag tatgttaatt tccctctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 2626
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2626
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Tyr Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ser His 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 Ile Ala Thr Tyr Phe Cys Gln Gln Tyr Val Asn Phe Pro Leu
85 90 95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 2627
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2627
caggactctc acaactat 18

<210> 2628
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2628
Gln Asp Ser His Asn Tyr
1 5

<210> 2629
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2629
gatgcatcc 9

<210> 2630
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2630
Asp Ala Ser

<210> 2631
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2631
caacagtatg ttaatttccc tctcact 27

<210> 2632
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2632
Gln Gln Tyr Val Asn Phe Pro Leu Thr
1 5

<210> 2633
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2633
caggtgcagc tggtggagtc tggagcagag gtgaaaaagc ccggggagtc tctgaagatc 60
tcctgtaagg gttctggata cacctttacc aactactgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatggggatc atctatccag gtgactctga gaccagatac 180
agtccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatcag caccgcctac 240
ctgcagtgga gcagcctgaa ggcctcggac accgccttat tttactgtgc gagacttggg 300
aggttcttcg acaactacta cgctatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 2634
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2634
Gln Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Asn Tyr
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Tyr Pro Gly Asp Ser Glu Thr Arg Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Leu Phe Tyr Cys
                85   90   95
Ala Arg Leu Gly Arg Phe Phe Asp Asn Tyr Tyr Ala Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 2635
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2635
ggatacacct ttaccaacta ctgg   24

<210> 2636
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2636
Gly Tyr Thr Phe Thr Asn Tyr Trp
 1   5

<210> 2637
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2637

atctatccag gtgactctga gacc 24

<210> 2638
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2638
Ile Tyr Pro Gly Asp Ser Glu Thr
 1 5

<210> 2639
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2639
gcgagacttg ggaggttctt cgacaactac tacgctatgg acgtc 45

<210> 2640
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2640
Ala Arg Leu Gly Arg Phe Phe Asp Asn Tyr Tyr Ala Met Asp Val
 1 5 10 15

<210> 2641
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2641
gacatcctga tgacccagtc tccatcctca ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca gggcattacc aattatttag cctggtttca gcagaaacca 120
gggaaagccc ctaagctcct gatctatggt gcgtccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaattt 240

gcagattttg aaaattacta ctgtcaacag acttacagta tcccgtacac ttttggccag 300
gggaccaagg tggaaatcaa acga 324

<210> 2642
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2642
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Thr Asn Tyr
20 25 30
Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45
Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Phe
65 70 75 80
Ala Asp Phe Glu Asn Tyr Tyr Cys Gln Gln Thr Tyr Ser Ile Pro Tyr
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 2643
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2643
cagggcatta ccaattat 18

<210> 2644
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2644
Gln Gly Ile Thr Asn Tyr
1 5

<210> 2645
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2645
ggtgcgtcc 9

<210> 2646
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2646
Gly Ala Ser
1

<210> 2647
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2647
caacagactt acagtatccc gtacact 27

<210> 2648
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2648
Gln Gln Thr Tyr Ser Ile Pro Tyr Thr
1 5

<210> 2649
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2649
caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agttactact ggagctggat ccggcagccc 120
ccagggaagg gactggagtg gattggatat atctattaca gtgggagcac caagtacaac 180
ccctccctca agagtcgagt caccatatca gtagacacgt ccaaaaacca gttctccctg 240
aaactgaact ctgtgaccgc tgcggacacg gccatgtatt actgtgcgag agataacggt 300
gacctctttg actactgggg ccagggaacc ctggtcaccg tctcctca 348

<210> 2650
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2650
Gln Val Gln Leu Val 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 Ser Thr Lys 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 Asn Ser Val Thr Ala Ala Asp Thr Ala Met Tyr Tyr Cys Ala
                85   90   95
Arg Asp Asn Gly Asp Leu Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 2651
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2651
ggtggctcca tcagtagtta ctac 24

<210> 2652
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2652
Gly Gly Ser Ile Ser Ser Tyr Tyr
 1   5

<210> 2653
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2653
atctattaca gtgggagcac c   21

<210> 2654
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2654
Ile Tyr Tyr Ser Gly Ser Thr
 1   5

<210> 2655
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2655
gcgagagata acggtgacct ctttgactac   30

<210> 2656
<211> 10
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2656
Ala Arg Asp Asn Gly Asp Leu Phe Asp Tyr
 1   5   10

<210> 2657
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2657
gacatcgtga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
agcacttgcc gggcaagtca gagcattagt agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct acatccagtt tgaaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta tcccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 2658
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2658
Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ser Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Thr Ser Ser Leu Lys Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ile Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2659
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2659
cagagcatta gtagctat 18

<210> 2660
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2660
Gln Ser Ile Ser Ser Tyr
1 5

<210> 2661
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2661
gctacatcc 9

<210> 2662
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2662
Ala Thr Ser
1

<210> 2663
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2663
caacagagtt acagtatccc gtacact 27

<210> 2664
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2664
Gln Gln Ser Tyr Ser Ile Pro Tyr Thr
1 5

<210> 2665
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2665
caggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gatcatggca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtaa cataggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa gtccctgtat 240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagatata 300
gcagcagctg gtctgtttta ctacggtatg gacgtctggg gccaagggac cacggtcacc 360
gtctcctca 369

<210> 2666
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2666
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp His
20 25 30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Gly Ile Ser Trp Asn Ser Gly Asn Ile Gly Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Ser Leu Tyr
65 70 75 80

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

<210> 2667
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2667
ggattcacct ttgatgatca tggc 24

<210> 2668
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2668
Gly Phe Thr Phe Asp Asp His Gly
1 5

<210> 2669
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2669
attagttgga atagtggtaa cata 24

<210> 2670
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2670

Ile Ser Trp Asn Ser Gly Asn Ile
 1   5

<210> 2671
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2671
gcaaaagata tagcagcagc tggtctgttt tactacggta tggacgtc 48

<210> 2672
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2672
Ala Lys Asp Ile Ala Ala Ala Gly Leu Phe Tyr Tyr Gly Met Asp Val
 1   5   10   15

<210> 2673
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2673
gacatccaga tgacccagtc tccatccttc ctgtctgcat ctgtcggaga cagagtcacc 60
atcacttgct gggccagtca gggcattagc acttatttag cctggtatca gaaaaaccca 120
gggaaagccc ctaagctcct attctatgct gcctccactt tcctaactgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacag cttgatagtt acccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 2674
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2674
Asp Ile Gln Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Trp Ala Ser Gln Gly Ile Ser Thr Tyr
            20   25   30
Leu Ala Trp Tyr Gln Lys Asn Pro Gly Lys Ala Pro Lys Leu Leu Phe
        35   40   45
Tyr Ala Ala Ser Thr Phe Leu Thr 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 Asp Ser Tyr Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2675
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2675
cagggcatta gcacttat   18

<210> 2676
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2676
Gln Gly Ile Ser Thr Tyr
 1   5

<210> 2677
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2677
gctgcctcc   9

<210> 2678
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2678
Ala Ala Ser
 1

<210> 2679
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2679
caacagcttg atagttaccc gctcact 27

<210> 2680
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2680
Gln Gln Leu Asp Ser Tyr Pro Leu Thr
 1 5

<210> 2681
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2681
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agttactatt ggagctggat ccggcagccc 120
ccagggaagg gactggagtg gattgggtat atctattaca gtgggagcac caagtacaac 180
ccctccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aagctgagct ctgtgaccac tgcggacacg gccgcgtatt actgtgcgag agatccccag 300
tattatcatg atagtagtgg ttattacggg ggttttgact actggggcca gggaaccccg 360

gtcaccgtct cctca 375

<210> 2682
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2682
Glu Val Gln Leu Val 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 Ser Thr Lys 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 Thr Ala Asp Thr Ala Ala Tyr Tyr Cys Ala
                85   90   95
Arg Asp Pro Gln Tyr Tyr His Asp Ser Ser Gly Tyr Tyr Gly Gly Phe
            100   105   110
Asp Tyr Trp Gly Gln Gly Thr Pro Val Thr Val Ser Ser
        115   120   125

<210> 2683
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2683
ggtggctcca tcagtagtta ctat 24

<210> 2684
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2684
Gly Gly Ser Ile Ser Ser Tyr Tyr
 1   5

<210> 2685
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2685
atctattaca gtgggagcac c 21

<210> 2686
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2686
Ile Tyr Tyr Ser Gly Ser Thr
1 5

<210> 2687
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2687
gcgagagatc cccagtatta tcatgatagt agtggttatt acgggggttt tgactac 57

<210> 2688
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2688
Ala Arg Asp Pro Gln Tyr Tyr His Asp Ser Ser Gly Tyr Tyr Gly Gly
1 5 10 15
Phe Asp Tyr

<210> 2689

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

<220>
<223> synthetic

<400> 2689
gacatcctga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gcgggccacc 60
atcaactgca agtccagcca gagtgtttta tacaactcca acaataagaa ctacttagct 120
tggtaccagc agaaaccagg acagacgcct aaactgctca tttactgggc atctacccgg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttataatact 300
ccgtacactt ttggccaggg gaccaaggtg gagatcaaac ga 342

<210> 2690
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2690
Asp Ile Leu Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Asn
            20   25   30
Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Thr Pro Lys Leu Leu Ile Tyr 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 Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Asn Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys Arg

<210> 2691
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2691
cagagtgttt tatacaactc caacaataag aactac 36

<210> 2692
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2692
Gln Ser Val Leu Tyr Asn Ser Asn Asn Lys Asn Tyr
 1   5   10

<210> 2693
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2693
tgggcatct 9

<210> 2694
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2694
Trp Ala Ser
 1

<210> 2695
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2695
cagcaatatt ataatactcc gtacact 27

<210> 2696
<211> 9
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 2696
Gln Gln Tyr Tyr Asn Thr Pro Tyr Thr
 1   5

<210> 2697
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2697
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattgtgcca tgcactgggt ccggctagct 120
ccagggaagg gcctggagtg tgtctcaggt attagttgga atagtggtaa cataggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagatata 300
gcagcagctg gtctgtatta ctacggtttg gacgtctggg gccgagggac cacggtcacc 360
gtctcctca   369

<210> 2698
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2698
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Cys
            20   25   30
Ala Met His Trp Val Arg Leu Ala Pro Gly Lys Gly Leu Glu Cys Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Asn Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Ile Ala Ala Ala Gly Leu Tyr Tyr Tyr Gly Leu Asp Val
            100   105   110
Trp Gly Arg Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 2699
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2699
ggattcacct ttgatgattg tgcc 24

<210> 2700
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2700
Gly Phe Thr Phe Asp Asp Cys Ala
 1 5

<210> 2701
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2701
attagttgga atagtggtaa cata 24

<210> 2702
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2702
Ile Ser Trp Asn Ser Gly Asn Ile
 1 5

<210> 2703
<211> 48

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2703
gcaaaagata tagcagcagc tggtctgtat tactacggtt tggacgtc 48

<210> 2704
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2704
Ala Lys Asp Ile Ala Ala Ala Gly Leu Tyr Tyr Tyr Gly Leu Asp Val
1 5 10 15

<210> 2705
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2705
gacatccaga tgacccagtc tccatccttc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgct ggtccagtca ggacattaac agttatttag tctggtatca gcaaaagcca 120
gggaaagccc ctaaactcct gatctatgct gcatccactt tgctcagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagag ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacac cttaatggtt acccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 2706
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2706
Asp Ile Gln Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Trp Ser Ser Gln Asp Ile Asn Ser Tyr
20 25 30
Leu Val Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile

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        35                  40                  45
Tyr Ala Ala Ser Thr Leu Leu 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 His Leu Asn Gly Tyr Pro Leu
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 2707
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2707
caggacatta acagttat 18

<210> 2708
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2708
Gln Asp Ile Asn Ser Tyr
 1   5

<210> 2709
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2709
gctgcatcc 9

<210> 2710
<211> 3
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2710
Ala Ala Ser
 1

<210> 2711
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2711
caacacctta atggttaccc gctcact 27

<210> 2712
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2712
Gln His Leu Asn Gly Tyr Pro Leu Thr
 1 5

<210> 2713
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2713
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agttattatt ggagttggat ccggcagccc 120
ccagggaagg gactggaatg gattggatat atctattaca gtgggaggac caactacaac 180
ccctccgtca agagtcgagt caccatatca gtagacacgt ccaaaaacca gttctccctg 240
aagctgaact ctgtgaccgc tgcggacacg gccgtgtatt actgtgcgag agatccccag 300
tattactctg agagaagtgg ttattacggg ggttttgact actggggcca gggagcactg 360
gtcaccgtct cctca 375

<210> 2714
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2714
Glu Val Gln Leu Val 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 Val 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 Asn Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Pro Gln Tyr Tyr Ser Glu Arg Ser Gly Tyr Tyr Gly Gly Phe
            100   105   110
Asp Tyr Trp Gly Gln Gly Ala Leu Val Thr Val Ser Ser
        115   120   125

<210> 2715
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2715
ggtggctcca tcagtagtta ttat   24

<210> 2716
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2716
Gly Gly Ser Ile Ser Ser Tyr Tyr
 1   5

<210> 2717
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2717
atctattaca gtgggaggac c 21

<210> 2718
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2718
Ile Tyr Tyr Ser Gly Arg Thr
1 5

<210> 2719
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2719
gcgagagatc cccagtatta ctctgagaga agtggttatt acgggggttt tgactac 57

<210> 2720
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2720
Ala Arg Asp Pro Gln Tyr Tyr Ser Glu Arg Ser Gly Tyr Tyr Gly Gly
1 5 10 15
Phe Asp Tyr

<210> 2721
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2721
gacatcctga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca ggtccagcca gagtgttttg ttcagctcca acaattggaa ctatttagct 120
tggtaccagc agaagccagg acagcctcct aagttgctca tttactgggc atctatccgg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttataatact 300
ccgtacactt ttggccaggg gaccaaggtg gagatcaaac ga 342

<210> 2722
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2722
Asp Ile Leu Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Arg Ser Ser Gln Ser Val Leu Phe Ser
            20   25   30
Ser Asn Asn Trp Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Ile 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 Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Asn Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys Arg

<210> 2723
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2723
cagagtgttt tgttcagctc caacaattgg aactat 36

<210> 2724
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2724
Gln Ser Val Leu Phe Ser Ser Asn Asn Trp Asn Tyr
 1   5   10

<210> 2725
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2725
tgggcatct   9

<210> 2726
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2726
Trp Ala Ser
 1

<210> 2727
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2727
cagcaatatt ataatactcc gtacact   27

<210> 2728
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2728

Gln Gln Tyr Tyr Asn Thr Pro Tyr Thr
 1   5

<210> 2729
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2729
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agttactact ggagctggat ccggcagccc 120
ccagagaagg gactggagtg gattgggtat atctattaca gtgggagcac caactacaac 180
ccctccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aaactgagct ctgtgaccgc tgcggacacg gccgtttatt actgtgcgag agatacccag 300
tattactttg atagtagtgg ttattacggg ggttttgact actggggcca gggaaccctg 360
gtcaccgtct cctca   375

<210> 2730
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2730
Glu Val Gln Leu Val 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 Glu Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Thr Gln Tyr Tyr Phe Asp Ser Ser Gly Tyr Tyr Gly Gly Phe
            100   105   110
Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 2731
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2731
ggtggctcca tcagtagtta ctac 24

<210> 2732
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2732
Gly Gly Ser Ile Ser Ser Tyr Tyr
1 5

<210> 2733
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2733
atctattaca gtgggagcac c 21

<210> 2734
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2734
Ile Tyr Tyr Ser Gly Ser Thr
1 5

<210> 2735
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2735
gcgagagata cccagtatta ctttgatagt agtggttatt acgggggttt tgactac 57

<210> 2736
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2736
Ala Arg Asp Thr Gln Tyr Tyr Phe Asp Ser Ser Gly Tyr Tyr Gly Gly
 1   5   10   15
Phe Asp Tyr

<210> 2737
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2737
gacatcctga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tacagatcca acaataagaa ctacttagct 120
tggtaccacc agaaaccagg acagcctcct aagctgctca tttactgggc atctacccgg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca atttattact gtcaacaata ttataatact 300
ccgtacactt ttggccaggg gaccaaggtg gagatcaaac ga 342

<210> 2738
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2738
Asp Ile Leu Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Arg
            20   25   30
Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr His 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 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 Ile Tyr Tyr Cys Gln Gln
85 90 95
Tyr Tyr Asn Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110
Lys Arg

<210> 2739
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2739
cagagtgttt tatacagatc caacaataag aactac 36

<210> 2740
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2740
Gln Ser Val Leu Tyr Arg Ser Asn Asn Lys Asn Tyr
1 5 10

<210> 2741
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2741
tgggcatct 9

<210> 2742
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2742
Trp Ala Ser
 1

<210> 2743
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2743
caacaatatt ataatactcc gtacact 27

<210> 2744
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2744
Gln Gln Tyr Tyr Asn Thr Pro Tyr Thr
 1 5

<210> 2745
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2745
gaggtgcagc tggtggagtc tggagcagag gtgaaaaagc ccggggagtc tctgaagatc 60
tcctgtaagg gttctggata cacctttacc aactactgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatggggatc atctatccag gtgactctga gaccagatac 180
agtccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatcag caccgcctac 240
ctgcagtgga gtagcctgaa ggcctcggac accgccttat tttactgtgc gagacttggg 300
aggttcttcg acaactacta cgctatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 2746
<211> 122
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2746
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Asn Tyr
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Tyr Pro Gly Asp Ser Glu Thr Arg Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Leu Phe Tyr Cys
                85   90   95
Ala Arg Leu Gly Arg Phe Phe Asp Asn Tyr Tyr Ala Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 2747
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2747
ggatacacct ttaccaacta ctgg   24

<210> 2748
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2748
Gly Tyr Thr Phe Thr Asn Tyr Trp
 1   5

<210> 2749
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2749
atctatccag gtgactctga gacc 24

<210> 2750
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2750
Ile Tyr Pro Gly Asp Ser Glu Thr
1 5

<210> 2751
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2751
gcgagacttg ggaggttctt cgacaactac tacgctatgg acgtc 45

<210> 2752
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2752
Ala Arg Leu Gly Arg Phe Phe Asp Asn Tyr Tyr Ala Met Asp Val
1 5 10 15

<210> 2753
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2753
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcaagtca gagcattagc acctatttaa attggtatca gcagaaacca 120

gggaaagccc ctaagctcct gatctatggt gcgtccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaattt 240
gcagattttg aaaattacta ctgtcaacag acttacagta tcccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 2754
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2754
Asp Ile Leu 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 Ser Ile Ser Thr Tyr
20 25 30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45
Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Phe
65 70 75 80
Ala Asp Phe Glu Asn Tyr Tyr Cys Gln Gln Thr Tyr Ser Ile Pro Tyr
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 2755
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2755
cagagcatta gcacctat 18

<210> 2756
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2756
Gln Ser Ile Ser Thr Tyr
1 5

<210> 2757
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2757
ggtgcgtcc 9

<210> 2758
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2758
Gly Ala Ser
1

<210> 2759
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2759
caacagactt acagtatccc gtacact 27

<210> 2760
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2760
Gln Gln Thr Tyr Ser Ile Pro Tyr Thr
1 5

<210> 2761
<211> 357

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2761
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt gactatggca tgcactgggt ccggcaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atttggtatg atggaaataa aaaagactgt 180
gtagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacactgtat 240
ctacaaatga atagcctgag agccgaggac acggctgtgt attactgtgc gagaatgagg 300
tataactgga actcatttga ctactggggc cagggaaccc tggtcaccgt ctcctca 357

<210> 2762
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2762
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp 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 Asn Lys Lys Asp Cys Val 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 Met Arg Tyr Asn Trp Asn Ser Phe Asp Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 2763
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2763
ggattcacct tcagtgacta tggc 24

<210> 2764
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2764
Gly Phe Thr Phe Ser Asp Tyr Gly
 1   5

<210> 2765
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2765
atttggtatg atggaaataa aaaa   24

<210> 2766
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2766
Ile Trp Tyr Asp Gly Asn Lys Lys
 1   5

<210> 2767
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2767
gcgagaatga ggtataactg gaactcattt gactac   36

<210> 2768
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2768
Ala Arg Met Arg Tyr Asn Trp Asn Ser Phe Asp Tyr
 1   5   10

<210> 2769
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2769
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcgagtca ggtcactcac aactatttaa attggtatca gcagaaacca 120
gggaaatccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatattt ctgtcaacag tatgttaatt tccctctcac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 2770
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2770
Asp Ile Leu 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 Val Thr His Asn Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ser 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 Ile Ala Thr Tyr Phe Cys Gln Gln Tyr Val Asn Phe Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2771
<211> 18

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2771
caggtcactc acaactat 18

<210> 2772
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2772
Gln Val Thr His Asn Tyr
1 5

<210> 2773
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2773
gatgcatcc 9

<210> 2774
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2774
Asp Ala Ser
1

<210> 2775
<211> 27
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2775
caacagtatg ttaatttccc tctcact 27

<210> 2776
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2776
Gln Gln Tyr Val Asn Phe Pro Leu Thr
 1 5

<210> 2777
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2777
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt gactatggca tgcactgggt ccggcaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atttggtatg atggatataa aaaagactgt 180
atagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctatat 240
ctacaaatga atagcctgag agccgaggac acggcttttt attactgtgc gagaatgagg 300
tataactgga acgcgtttga cttctggggc cagggaacca tggtcaccgt ctcctca 357

<210> 2778
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2778
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp 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 Tyr Lys Lys Asp Cys Ile 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 Phe Tyr Tyr Cys
85 90 95
Ala Arg Met Arg Tyr Asn Trp Asn Ala Phe Asp Phe Trp Gly Gln Gly
100 105 110
Thr Met Val Thr Val Ser Ser
115

<210> 2779
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2779
ggattcacct tcagtgacta tggc 24

<210> 2780
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2780
Gly Phe Thr Phe Ser Asp Tyr Gly
1 5

<210> 2781
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2781
atttggtatg atggatataa aaaa 24

<210> 2782
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2782
Ile Trp Tyr Asp Gly Tyr Lys Lys
 1   5

<210> 2783
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2783
gcgagaatga ggtataactg gaacgcgttt gacttc   36

<210> 2784
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2784
Ala Arg Met Arg Tyr Asn Trp Asn Ala Phe Asp Phe
 1   5   10

<210> 2785
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2785
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcgagtca ggacactcac aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatattt ctgtcaacag tatgttaatt tccctctcac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 2786
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2786
Asp Ile Leu 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 Thr His 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 Ile Ala Thr Tyr Phe Cys Gln Gln Tyr Val Asn Phe Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2787
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2787
caggacactc acaactat 18

<210> 2788
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2788
Gln Asp Thr His Asn Tyr
 1   5

<210> 2789
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2789
gatgcatcc 9

<210> 2790
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2790
Asp Ala Ser
 1

<210> 2791
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2791
caacagtatg ttaatttccc tctcact 27

<210> 2792
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2792
Gln Gln Tyr Val Asn Phe Pro Leu Thr
 1   5

<210> 2793
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2793
caggtgcagc tggtggagtc tggagcagag gtgaaaaagc ccggggagtc tctgaagatc 60
tcctgtaagg gttctggata cacctttacc aactactgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatggggatc atctatccag gtgactctga gaccagatac 180
agtccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatcag caccgcctac 240
ctgcagtgga gcagcctgaa ggcctcggac accgccttat tttactgtgc gaaacttggg 300

aggttcttcg acaactacta cgctatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 2794
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2794
Gln Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Asn Tyr
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Tyr Pro Gly Asp Ser Glu Thr Arg Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Leu Phe Tyr Cys
                85   90   95
Ala Lys Leu Gly Arg Phe Phe Asp Asn Tyr Tyr Ala Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 2795
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2795
ggatacacct ttaccaacta ctgg 24

<210> 2796
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2796
Gly Tyr Thr Phe Thr Asn Tyr Trp
 1   5

<210> 2797
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2797
atctatccag gtgactctga gacc 24

<210> 2798
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2798
Ile Tyr Pro Gly Asp Ser Glu Thr
1 5

<210> 2799
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2799
gcgaaacttg ggaggttctt cgacaactac tacgctatgg acgtc 45

<210> 2800
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2800
Ala Lys Leu Gly Arg Phe Phe Asp Asn Tyr Tyr Ala Met Asp Val
1 5 10 15

<210> 2801
<211> 324

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2801
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcaagtca gagcattagc acctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatggt gcgtccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaattt 240
gcagattttg aaaattacta ctgtcaacag acttacagta tcccgtacac ttttggccag 300
gggaccaagc tggagatcaa acga 324

<210> 2802
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2802
Asp Ile Leu 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 Ser Ile Ser Thr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Phe
65   70   75   80
Ala Asp Phe Glu Asn Tyr Tyr Cys Gln Gln Thr Tyr Ser Ile Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
            100   105

<210> 2803
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2803
cagagcatta gcacctat 18

<210> 2804
<211> 6

<212> PRT
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<220>
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<400> 2804
Gln Ser Ile Ser Thr Tyr
 1   5

<210> 2805
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<212> DNA
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<220>
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<400> 2805
ggtgcgtcc   9

<210> 2806
<211> 3
<212> PRT
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<220>
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<400> 2806
Gly Ala Ser
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<210> 2807
<211> 27
<212> DNA
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<220>
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<400> 2807
caacagactt acagtatccc gtacact   27

<210> 2808
<211> 9
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<220>

<223> synthetic

<400> 2808
Gln Gln Thr Tyr Ser Ile Pro Tyr Thr
 1   5

<210> 2809
<211> 366
<212> DNA
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<220>
<223> synthetic

<400> 2809
gaggtgcagc tggtggagtc tggagcagag gtgaaaaagc ccggggagtc tctgaagatc 60
tcctgtaagg gttctggata cacctttacc aactactgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatggggatc atctatccag gtgactctga gaccagatac 180
agtccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatcag caccgcctac 240
ctgcagtgga gcagcctgaa ggcctcggac accgccttat tttactgtgc gagacttggg 300
aggttcttcg acaactacta cgctatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca   366

<210> 2810
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2810
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Asn Tyr
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Tyr Pro Gly Asp Ser Glu Thr Arg Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Leu Phe Tyr Cys
                85   90   95
Ala Arg Leu Gly Arg Phe Phe Asp Asn Tyr Tyr Ala Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 2811

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

<220>
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<400> 2811
ggatacacct ttaccaacta ctgg 24

<210> 2812
<211> 8
<212> PRT
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<220>
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<400> 2812
Gly Tyr Thr Phe Thr Asn Tyr Trp
 1 5

<210> 2813
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2813
atctatccag gtgactctga gacc 24

<210> 2814
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2814
Ile Tyr Pro Gly Asp Ser Glu Thr
 1 5

<210> 2815
<211> 45
<212> DNA
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<220>
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<400> 2815
gcgagacttg ggaggttctt cgacaactac tacgctatgg acgtc 45

<210> 2816
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2816
Ala Arg Leu Gly Arg Phe Phe Asp Asn Tyr Tyr Ala Met Asp Val
1 5 10 15

<210> 2817
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2817
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atcacttgtc gggcaagtca gagcattagc acctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatggt gcgtccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaattt 240
gcagattttg aaaattacta ctgtcaacag acttacagta tcccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 2818
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2818
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Ile Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Thr Tyr
20 25 30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45
Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

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

<210> 2819
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2819
cagagcatta gcacctat 18

<210> 2820
<211> 6
<212> PRT
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<220>
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<400> 2820
Gln Ser Ile Ser Thr Tyr
1 5

<210> 2821
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2821
ggtgcgtcc 9

<210> 2822
<211> 3
<212> PRT
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<220>
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<400> 2822

Gly Ala Ser
 1

<210> 2823
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2823
caacagactt acagtatccc gtacact 27

<210> 2824
<211> 9
<212> PRT
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<220>
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<400> 2824
Gln Gln Thr Tyr Ser Ile Pro Tyr Thr
 1 5

<210> 2825
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2825
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tcctgtgcag cgtctggatt caccttcagt aactatggca tgcactgggt ccgccaggct 120
cccggcaagg ggctggaatg ggtggcactt atatggtttg atggaagtaa taaaaactat 180
gcagactccg tgacgggccg attcaccatc tccagagaca attccaagaa tacgctgtat 240
ctgcaaatga acaggctgag agccgaggac acggctgtat actactgtgc gacagaaata 300
gcagctcgtc cctttgaata ttggggccag ggaatcctgg tcaccgtctc ctca 354

<210> 2826
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2826
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Leu Ile Trp Phe Asp Gly Ser Asn Lys Asn Tyr Ala Asp Ser Val
    50   55   60
Thr Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Arg Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Ile
            100   105   110
Leu Val Thr Val Ser Ser
        115

<210> 2827
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2827
ggattcacct tcagtaacta tggc   24

<210> 2828
<211> 8
<212> PRT
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<220>
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<400> 2828
Gly Phe Thr Phe Ser Asn Tyr Gly
 1   5

<210> 2829
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2829

atatggtttg atggaagtaa taaa 24

<210> 2830
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2830
Ile Trp Phe Asp Gly Ser Asn Lys
 1 5

<210> 2831
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2831
gcgacagaaa tagcagctcg tccctttgaa tat 33

<210> 2832
<211> 11
<212> PRT
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<220>
<223> synthetic

<400> 2832
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr
 1 5 10

<210> 2833
<211> 339
<212> DNA
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<220>
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<400> 2833
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atctcctgca ggtctagtca gagcctcctg catagtaatg gatacaacta tttggattgg 120
tacctgcaga agccagggca gtctccacag ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac actgaaaatc 240

agcagagtgg aggctgagga tgttggggtt tattactgca tgcaagctct acaaactccg 300
tacacttttg gccaggggac caaggtggag atcaaacga 339

<210> 2834
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2834
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
                85   90   95
Leu Gln Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110
Arg

<210> 2835
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2835
cagagcctcc tgcatagtaa tggatacaac tat 33

<210> 2836
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2836
Gln Ser Leu Leu His Ser Asn Gly Tyr Asn Tyr
 1   5   10

<210> 2837
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2837
ttgggttct 9

<210> 2838
<211> 3
<212> PRT
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<220>
<223> synthetic

<400> 2838
Leu Gly Ser
1

<210> 2839
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2839
atgcaagctc tacaaactcc gtacact 27

<210> 2840
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 2840
Met Gln Ala Leu Gln Thr Pro Tyr Thr
1 5

<210> 2841
<211> 369

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2841
caggtgcagc tggtggagtc aggtccagga ctggtgaagc cctcgcagac cctctcactc 60
acctgtgcca tctccgggga cagtgtctct aggatcaatg ttgcttggaa ctggatcagg 120
cagtccccat cgagaggcct tgagtggctg ggaaggacat actacaggtc cacgtggttt 180
aatgattatg cagtatctgt gaaaagtcga ataaccatca ctcccgacac atccaagaac 240
cagttctccc tgcagctgaa ctctgtgact cccgaggaca cggctgtcta ttactgtaca 300
agagctggaa ctacgtttta ctggtacttc gatctctggg gccgtggcac cctggtcacc 360
gtctcctca 369

<210> 2842
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2842
Gln Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Ile Ser Gly Asp Ser Val Ser Arg Ile
            20   25   30
Asn 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 Thr Trp Phe Asn Asp Tyr Ala
    50   55   60
Val Ser Val Lys Ser Arg Ile Thr Ile Thr Pro Asp Thr Ser Lys Asn
65   70   75   80
Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
                85   90   95
Tyr Tyr Cys Thr Arg Ala Gly Thr Thr Phe Tyr Trp Tyr Phe Asp Leu
            100   105   110
Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 2843
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2843
ggggacagtg tctctaggat caatgttgct 30

<210> 2844
<211> 10
<212> PRT
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<220>
<223> synthetic

<400> 2844
Gly Asp Ser Val Ser Arg Ile Asn Val Ala
 1   5   10

<210> 2845
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2845
acatactaca ggtccacgtg gtttaat   27

<210> 2846
<211> 9
<212> PRT
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<220>
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<400> 2846
Thr Tyr Tyr Arg Ser Thr Trp Phe Asn
 1   5

<210> 2847
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2847
acaagagctg gaactacgtt ttactggtac ttcgatctc   39

<210> 2848
<211> 13
<212> PRT

<213> Artificial Sequence

<220>
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<400> 2848
Thr Arg Ala Gly Thr Thr Phe Tyr Trp Tyr Phe Asp Leu
 1   5   10

<210> 2849
<211> 321
<212> DNA
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<220>
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<400> 2849
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atcacttgcc gggccagtca gggtattggt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattgtg caacttatta ctgccaacag tatgatactt attacacttt tggccagggg 300
accaaggtgg agatcaaacg a   321

<210> 2850
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2850
Asp Ile Leu 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 Gly Ile Gly Ser Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Cys Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Thr Tyr Tyr Thr
                85   90   95
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2851

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

<220>
<223> synthetic

<400> 2851
cagggtattg gtagctgg 18

<210> 2852
<211> 6
<212> PRT
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<220>
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<400> 2852
Gln Gly Ile Gly Ser Trp
1 5

<210> 2853
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2853
aaggcgtct 9

<210> 2854
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2854
Lys Ala Ser
1

<210> 2855
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2855
caacagtatg atacttatta cact 24

<210> 2856
<211> 8
<212> PRT
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<220>
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<400> 2856
Gln Gln Tyr Asp Thr Tyr Tyr Thr
1 5

<210> 2857
<211> 369
<212> DNA
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<220>
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<400> 2857
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acctgtgcca tctccgggga cagtgtctct aggatcaatg ttgcttggaa ctggatcagg 120
cagtccccat cgagaggcct tgagtggctg ggaaggacat actacaggtc cacgtggttt 180
aatgattatg cagtgtctgt gaaaagtcga ataaccatca ctcccgacac atccaagaac 240
cagttctccc tgcaactgaa ctctgtgact cccgaggaca cggctgtcta ttactgtaca 300
agagctggaa ctacgtttta ctggtacttc gatctctggg gccgtggcac cctggtcacc 360
gtctcctca 369

<210> 2858
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2858
Gln Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15
Thr Leu Ser Leu Thr Cys Ala Ile Ser Gly Asp Ser Val Ser Arg Ile
20 25 30
Asn 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 Thr Trp Phe Asn Asp Tyr Ala

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    50                  55                  60
Val Ser Val Lys Ser Arg Ile Thr Ile Thr Pro Asp Thr Ser Lys Asn
65                  70                  75                  80
Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
                85                  90                  95
Tyr Tyr Cys Thr Arg Ala Gly Thr Thr Phe Tyr Trp Tyr Phe Asp Leu
            100                 105                 110
Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 2859
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<212> DNA
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<220>
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<400> 2859
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<210> 2860
<211> 10
<212> PRT
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<220>
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<400> 2860
Gly Asp Ser Val Ser Arg Ile Asn Val Ala
 1   5   10

<210> 2861
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2861
acatactaca ggtccacgtg gtttaat 27

<210> 2862
<211> 9
<212> PRT
<213> Artificial Sequence

<220>

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<400> 2862
Thr Tyr Tyr Arg Ser Thr Trp Phe Asn
 1   5

<210> 2863
<211> 39
<212> DNA
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<220>
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<400> 2863
acaagagctg gaactacgtt ttactggtac ttcgatctc   39

<210> 2864
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2864
Thr Arg Ala Gly Thr Thr Phe Tyr Trp Tyr Phe Asp Leu
 1   5   10

<210> 2865
<211> 321
<212> DNA
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<220>
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<400> 2865
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atcacttgcc gggccagtca gggtattggt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattgtg catcttatta ctgccaacag tatgatactt attacacttt tggccagggg 300
accaaggtgg agatcaaacg a   321

<210> 2866
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2866
Asp Ile Leu 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 Gly Ile Gly Ser Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Cys Ala Ser Tyr Tyr Cys Gln Gln Tyr Asp Thr Tyr Tyr Thr
                85   90   95
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2867
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2867
cagggtattg gtagctgg   18

<210> 2868
<211> 6
<212> PRT
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<220>
<223> synthetic

<400> 2868
Gln Gly Ile Gly Ser Trp
 1   5

<210> 2869
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2869
aaggcgtct 9

<210> 2870
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2870
Lys Ala Ser
1

<210> 2871
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2871
caacagtatg atacttatta cact 24

<210> 2872
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2872
Gln Gln Tyr Asp Thr Tyr Tyr Thr
1 5

<210> 2873
<211> 363
<212> DNA
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<220>
<223> synthetic

<400> 2873
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tcctgtaagg tttctggata cagttttacc aactactgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatggggatc atctatccta gtgactctga taccagatac 180

agcccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccaatag caccgcctac 240
ctacagtgga ccagcctgaa ggccgcggac accgccatgt atttctgtgc gaggtcggca 300
aatttttgga gtggttatcc ctttgactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 2874
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2874
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1 5 10 15
Ser Leu Lys Ile Ser Cys Lys Val Ser Gly Tyr Ser Phe Thr Asn Tyr
            20 25 30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35 40 45
Gly Ile Ile Tyr Pro Ser Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
    50 55 60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Asn Ser Thr Ala Tyr
65 70 75 80
Leu Gln Trp Thr Ser Leu Lys Ala Ala Asp Thr Ala Met Tyr Phe Cys
                85 90 95
Ala Arg Ser Ala Asn Phe Trp Ser Gly Tyr Pro Phe Asp Tyr Trp Gly
            100 105 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115 120

<210> 2875
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2875
ggatacagtt ttaccaacta ctgg 24

<210> 2876
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2876

Gly Tyr Ser Phe Thr Asn Tyr Trp
1 5

<210> 2877
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2877
atctatccta gtgactctga tacc 24

<210> 2878
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2878
Ile Tyr Pro Ser Asp Ser Asp Thr
1 5

<210> 2879
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<220>
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<210> 2880
<211> 14
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<213> Artificial Sequence

<220>
<223> synthetic

<400> 2880
Ala Arg Ser Ala Asn Phe Trp Ser Gly Tyr Pro Phe Asp Tyr
1 5 10

<210> 2881
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2881
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atcacttgcc gggcaagtca gagcattagt agatatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatgtt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc cgggacagat ttcactctca ccatcaacag tctgcaacct 240
gaagattttg caacttacta ttgtcaacag acttacagta tcccgtacac atttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 2882
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2882
Asp Ile Leu 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 Ser Ile Ser Arg Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Val Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Thr Tyr Ser Ile Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2883
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2883
cagagcatta gtagatat 18

<210> 2884
<211> 6
<212> PRT
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<220>
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<400> 2884
Gln Ser Ile Ser Arg Tyr
 1   5

<210> 2885
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2885
gttgcatcc   9

<210> 2886
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2886
Val Ala Ser
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<210> 2887
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2887
caacagactt acagtatccc gtacaca   27

<210> 2888
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 2888
Gln Gln Thr Tyr Ser Ile Pro Tyr Thr
 1   5

<210> 2889
<211> 354
<212> DNA
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<220>
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tcctgtgcag cgtctggatt caccttcagt acctatggca tgcattgggt ccgccaggct 120
ccaggcaagg gactggagtg ggtggccctt atatggtatg acggaactaa taaaaactat 180
gcagattccg tgacgggccg attcaccatc tccagagaca attccaagaa cacattgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gacagaaata 300
gcagctcgtc cctttgaata ctggggccag ggaaccctgg tcaccgtctc ctca   354

<210> 2890
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2890
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Leu Ile Trp Tyr Asp Gly Thr Asn Lys Asn Tyr Ala Asp Ser Val
    50   55   60
Thr 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 Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Thr
            100   105   110
Leu Val Thr Val Ser Ser
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<210> 2891
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2891
ggattcacct tcagtaccta tggc 24

<210> 2892
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2892
Gly Phe Thr Phe Ser Thr Tyr Gly
1 5

<210> 2893
<211> 24
<212> DNA
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<220>
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<400> 2893
atatggtatg acggaactaa taaa 24

<210> 2894
<211> 8
<212> PRT
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<220>
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<400> 2894
Ile Trp Tyr Asp Gly Thr Asn Lys
1 5

<210> 2895
<211> 33
<212> DNA
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<220>
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<400> 2895
gcgacagaaa tagcagctcg tccctttgaa tac 33

<210> 2896
<211> 11
<212> PRT
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<220>
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<400> 2896
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr
 1 5 10

<210> 2897
<211> 339
<212> DNA
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<220>
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atctcctgca ggtctactca gagcctccta cagattaatg gatacaacta tttggattgg 120
tacctgcaga agccagggca gtctccacag ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggagcaggca cagattttac actgaagatc 240
agcagagtgg aggctgagga tgttggggtt tattactgca tgcaagctct tcaaactccg 300
tacacttttg gccaggggac caaggtggag atcaaacga 339

<210> 2898
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2898
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Thr Gln Ser Leu Leu Gln Ile
            20 25 30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35 40 45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro

50 55 60

Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
85 90 95
Leu Gln Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110
Arg

<210> 2899
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2899
cagagcctcc tacagattaa tggatacaac tat 33

<210> 2900
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2900
Gln Ser Leu Leu Gln Ile Asn Gly Tyr Asn Tyr
1 5 10

<210> 2901
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2901
ttgggttct 9

<210> 2902
<211> 3
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2902
Leu Gly Ser
 1

<210> 2903
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2903
atgcaagctc ttcaaactcc gtacact 27

<210> 2904
<211> 9
<212> PRT
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<220>
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<400> 2904
Met Gln Ala Leu Gln Thr Pro Tyr Thr
 1 5

<210> 2905
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2905
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tcctgtgtag cgtctggaat caccttcagt aactatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcactt atatggtatg atggaagtaa taaaaactat 180
gcagattccg tgacgggccg attcatcatc tccagagaca attccaagaa tacgctgtat 240
ctgcaaatga acagcctgag agccgaggac gcggctgtgt acttctgtgc gacagaaata 300
gcagctcgtc cctttgaata ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 2906
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2906
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Ile Thr Phe Ser Asn Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Leu Ile Trp Tyr Asp Gly Ser Asn Lys Asn Tyr Ala Asp Ser Val
    50   55   60
Thr Gly Arg Phe Ile 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 Ala Ala Val Tyr Phe Cys
                85   90   95
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Thr
            100   105   110
Leu Val Thr Val Ser Ser
        115

<210> 2907
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2907
ggaatcacct tcagtaacta tggc   24

<210> 2908
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2908
Gly Ile Thr Phe Ser Asn Tyr Gly
 1   5

<210> 2909
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2909
atatggtatg atggaagtaa taaa 24

<210> 2910
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2910
Ile Trp Tyr Asp Gly Ser Asn Lys
1 5

<210> 2911
<211> 33
<212> DNA
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<220>
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<400> 2911
gcgacagaaa tagcagctcg tccctttgaa tac 33

<210> 2912
<211> 11
<212> PRT
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<220>
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<400> 2912
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr
1 5 10

<210> 2913
<211> 339
<212> DNA
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<220>
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<400> 2913
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atctcctgca ggtctagtca gagcctcctg caaattaatg gatacaacta tttggattgg 120
tacctgcaga agccagggca gtctccacag ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcagagtgg aggctgagga tgttggggtt tattactgca tgcaagctct acaaactccg 300
tacacttttg gccaggggac caaggtggag atcaaacga 339

<210> 2914
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2914
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Gln Ile
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
                85   90   95
Leu Gln Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110
Arg

<210> 2915
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2915
cagagcctcc tgcaaattaa tggatacaac tat 33

<210> 2916
<211> 11
<212> PRT
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<220>
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<400> 2916
Gln Ser Leu Leu Gln Ile Asn Gly Tyr Asn Tyr
 1   5   10

<210> 2917
<211> 9
<212> DNA
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<220>
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<400> 2917
ttgggttct   9

<210> 2918
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2918
Leu Gly Ser
 1

<210> 2919
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2919
atgcaagctc tacaaactcc gtacact   27

<210> 2920
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<212> PRT
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<220>
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<400> 2920
Met Gln Ala Leu Gln Thr Pro Tyr Thr
 1   5

<210> 2921
<211> 354
<212> DNA
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<220>
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<400> 2921
gaggtgcagc tggtggagtc tgggggaggc ttggtccagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt agctatgata tgcactgggt ccgccaggct 120
ccagggaagg gactggaata tgtttcaggt attagtagta agggggtag cacatattat 180
gcagactctg tgaagggcag attcaccatc tccagagaca attccaagaa tatactgtat 240
cttcaaatgg gcagactgag acctgaggac atggctgtgt attactgtgc gagagaggga 300
caactttggt actttgacta ctggggccag ggaaccatgg tcaccgtctc ctca 354

<210> 2922
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2922
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Asp Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Val
        35   40   45
Ser Gly Ile Ser Ser Lys Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Ile Leu Tyr
65   70   75   80
Leu Gln Met Gly Arg Leu Arg Pro Glu Asp Met Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Glu Gly Gln Leu Trp Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
            100   105   110
Met Val Thr Val Ser Ser
        115

<210> 2923
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2923
ggattcacct tcagtagcta tgat 24

<210> 2924
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2924
Gly Phe Thr Phe Ser Ser Tyr Asp
1 5

<210> 2925
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2925
attagtagta agggggtag caca 24

<210> 2926
<211> 8
<212> PRT
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<220>
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<400> 2926
Ile Ser Ser Lys Gly Gly Ser Thr
1 5

<210> 2927
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2927
gcgagagagg gacaactttg gtactttgac tac 33

<210> 2928

<211> 11
<212> PRT
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<220>
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<400> 2928
Ala Arg Glu Gly Gln Leu Trp Tyr Phe Asp Tyr
 1   5   10

<210> 2929
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2929
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ctctcctgca gggccagtca gagtgttagt agctacttag cctggtacca acagaaacct 120
ggccaggctc ccagactcct catctatgct gcatccaaca gggccactgg catcccagcc 180
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240
gaagattttg cagtttatta ctgtcagcag cgttccaact ggcctctcac tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 2930
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2930
Asp Ile Val Met Thr Gln Ser Pro Ala 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 Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Ser Asn Trp Pro Leu
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2931
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2931
cagagtgtta gtagctac 18

<210> 2932
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2932
Gln Ser Val Ser Ser Tyr
1 5

<210> 2933
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2933
gctgcatcc 9

<210> 2934
<211> 3
<212> PRT
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<220>
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<400> 2934
Ala Ala Ser
1

<210> 2935
<211> 27
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 2935
cagcagcgtt ccaactggcc tctcact 27

<210> 2936
<211> 9
<212> PRT
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<220>
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<400> 2936
Gln Gln Arg Ser Asn Trp Pro Leu Thr
 1   5

<210> 2937
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2937
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tcctgtaagg gttctggata cagctttacc agctactgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatggggatc atctatcctg gtgactctga taccagatac 180
agcccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatcag caccgcctac 240
ctgcagtgga gcagcctgaa ggcctcggac accgccatgt tttactgtgc gaggtcggaa 300
gatttttgga gtgcttatcc ctttgactac tggggccagg gaaccatggt caccgtctcc 360
tca 363

<210> 2938
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2938
Gln Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met

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        35                  40                  45
Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
    50                  55                  60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65                  70                  75                  80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Phe Tyr Cys
                85                  90                  95
Ala Arg Ser Glu Asp Phe Trp Ser Ala Tyr Pro Phe Asp Tyr Trp Gly
            100                 105                 110
Gln Gly Thr Met Val Thr Val Ser Ser
        115                 120
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<210> 2939
<211> 24
<212> DNA
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<220>
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<400> 2939
ggatacagct ttaccagcta ctgg 24

<210> 2940
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2940
Gly Tyr Ser Phe Thr Ser Tyr Trp
 1   5

<210> 2941
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2941
atctatcctg gtgactctga tacc 24

<210> 2942
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2942
Ile Tyr Pro Gly Asp Ser Asp Thr
 1   5

<210> 2943
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2943
gcgaggtcgg aagatttttg gagtgcttat ccctttgact ac   42

<210> 2944
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2944
Ala Arg Ser Glu Asp Phe Trp Ser Ala Tyr Pro Phe Asp Tyr
 1   5   10

<210> 2945
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2945
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atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctgagctcct gatctatgct gcttccagtt tgcagagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaatattttg caacttacta ctgtcaacag agttacagta ttccgtatac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 2946
<211> 108
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 2946
Asp Ile Leu 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 Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Glu Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Tyr Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ile Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 2947
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2947
cagagcatta gcagctat   18

<210> 2948
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2948
Gln Ser Ile Ser Ser Tyr
 1   5

<210> 2949
<211> 9
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 2949
gctgcttcc 9

<210> 2950
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2950
Ala Ala Ser
1

<210> 2951
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2951
caacagagtt acagtattcc gtatact 27

<210> 2952
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2952
Gln Gln Ser Tyr Ser Ile Pro Tyr Thr
1 5

<210> 2953
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2953
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60

tcctgtgcag cgtctggatt caccttcagt acctatggca tgcattgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggccctt atatggtatg acggaagtaa taaaaactat 180
gcagattccg tgacgggccg attcaccatc tccagagaca attccaagaa cacattgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gacagaaata 300
gcagctcgtc cctttgaata ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 2954
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2954
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
20 25 30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ala Leu Ile Trp Tyr Asp Gly Ser Asn Lys Asn Tyr Ala Asp Ser Val
50 55 60
Thr 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 Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Thr
100 105 110
Leu Val Thr Val Ser Ser
115

<210> 2955
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2955
ggattcacct tcagtaccta tggc 24

<210> 2956
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2956
Gly Phe Thr Phe Ser Thr Tyr Gly
 1   5

<210> 2957
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2957
atatggtatg acggaagtaa taaa   24

<210> 2958
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2958
Ile Trp Tyr Asp Gly Ser Asn Lys
 1   5

<210> 2959
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2959
gcgacagaaa tagcagctcg tccctttgaa tac   33

<210> 2960
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2960
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr
 1   5   10

<210> 2961
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2961
gacatcgtga tgacccagtc tccactctcc ctgcccgtca ctcctggaga gccggcctcc 60
atctcctgca ggtctactca gagtctccta caaattaatg gatacaacta tttggattgg 120
tacctgcaga agccagggca gtctccacag ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggagcaggca cagattttac actgaagatc 240
agcagagtgg aggctgagga tgttggggtt tattactgca tgcaagctct tcaaactccg 300
tacacttttg gccaggggac caaggtggag atcaaacga 339

<210> 2962
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2962
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Thr Gln Ser Leu Leu Gln Ile
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
                85   90   95
Leu Gln Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110
Arg

<210> 2963
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2963
cagagtctcc tacaaattaa tggatacaac tat 33

<210> 2964
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2964
Gln Ser Leu Leu Gln Ile Asn Gly Tyr Asn Tyr
1 5 10

<210> 2965
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2965
ttgggttct 9

<210> 2966
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2966
Leu Gly Ser
1

<210> 2967
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2967
atgcaagctc ttcaaactcc gtacact 27

<210> 2968

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

<220>
<223> synthetic

<400> 2968
Met Gln Ala Leu Gln Thr Pro Tyr Thr
 1   5

<210> 2969
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
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<400> 2969
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt tcctatggca tgcattgggt ccgccaggct 120
ccaggcaagg gactggagtg ggtggccctt atatggtatg acggaagtaa taaaaactat 180
gcagattccg tgacgggccg attcaccatc tccagagaca attccaagaa cacattgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgttt attactgtgc gacagaaata 300
gcagctcgtc cctttgaata ctggggccag ggaaccctgg tcaccgtctc ctca   354

<210> 2970
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2970
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Leu Ile Trp Tyr Asp Gly Ser Asn Lys Asn Tyr Ala Asp Ser Val
    50   55   60
Thr 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 Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Thr
            100   105   110
Leu Val Thr Val Ser Ser

<210> 2971
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2971
ggattcacct tcagttccta tggc 24

<210> 2972
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2972
Gly Phe Thr Phe Ser Ser Tyr Gly
1 5

<210> 2973
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2973
atatggtatg acggaagtaa taaa 24

<210> 2974
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 2974
Ile Trp Tyr Asp Gly Ser Asn Lys
1 5

<210> 2975

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

<220>
<223> synthetic

<400> 2975
gcgacagaaa tagcagctcg tccctttgaa tac 33

<210> 2976
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2976
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr
1 5 10

<210> 2977
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2977
gacatcgtga tgacccagtc tccactctcc ctgcccgtca ctcctggaga gccggcctcc 60
atctcctgca ggtctactca gagcctccta cagattaatg gatacaacta tttggattgg 120
tacctgcaga agccagggca gtctccacag ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggagcaggca cagattttac actgaagatc 240
agcagagtgg aggctgagga tgttggggtt tattactgca tgcaagctct tcaaactccg 300
tacacttttg gccaggggac caaggtggag atcaaacga 339

<210> 2978
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2978
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Thr Gln Ser Leu Leu Gln Ile
20 25 30

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

<210> 2979
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2979
cagagcctcc tacagattaa tggatacaac tat 33

<210> 2980
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2980
Gln Ser Leu Leu Gln Ile Asn Gly Tyr Asn Tyr
1 5 10

<210> 2981
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2981
ttgggttct 9

<210> 2982
<211> 3
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 2982
Leu Gly Ser
 1

<210> 2983
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2983
atgcaagctc ttcaaactcc gtacact 27

<210> 2984
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2984
Met Gln Ala Leu Gln Thr Pro Tyr Thr
 1   5

<210> 2985
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2985
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggggGTC cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt tcctatggca tgcattgggt ccgccaggct 120
ccaggcaagg gactggagtg ggtggccctt atatggtatg acggaagtaa taaaaactat 180
gcagattccg tgacgggccg attcaccatc tccagagaca attccaagaa cacattgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgttt attactgtgc gacagaaata 300
gcagctcgtc cctttgaata ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 2986
<211> 118

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2986
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Leu Ile Trp Tyr Asp Gly Ser Asn Lys Asn Tyr Ala Asp Ser Val
    50   55   60
Thr 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 Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Thr
            100   105   110
Leu Val Thr Val Ser Ser
        115

<210> 2987
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2987
ggattcacct tcagttccta tggc   24

<210> 2988
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2988
Gly Phe Thr Phe Ser Ser Tyr Gly
 1   5

<210> 2989
<211> 24
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 2989
atatggtatg acggaagtaa taaa 24

<210> 2990
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 2990
Ile Trp Tyr Asp Gly Ser Asn Lys
1 5

<210> 2991
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2991
gcgacagaaa tagcagctcg tccctttgaa tac 33

<210> 2992
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2992
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr
1 5 10

<210> 2993
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2993
gacatcgtga tgacccagtc tccactctcc ctgcccgtca ctcctggaga gccggcctcc 60
atctcctgca ggtctactca gagcctccta cagattaatg gatacaacta tttggattgg 120
tacttgcaga agccagggca gtctccacac ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggagcaggca cagattttac actgaagatc 240
agcagagtgg agcctgatga tgttggggtt tattactgca tgcaagctct tcaaactccg 300
tacacttttg gccaggggac caaggtggag atcaaacga 339

<210> 2994
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2994
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Thr Gln Ser Leu Leu Gln Ile
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro His Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Pro Asp Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
                85   90   95
Leu Gln Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110
Arg

<210> 2995
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2995
cagagcctcc tacagattaa tggatacaac tat 33

<210> 2996
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2996
Gln Ser Leu Leu Gln Ile Asn Gly Tyr Asn Tyr
 1   5   10

<210> 2997
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2997
ttgggttct   9

<210> 2998
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2998
Leu Gly Ser
 1

<210> 2999
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2999
atgcaagctc ttcaaactcc gtacact   27

<210> 3000
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3000

Met Gln Ala Leu Gln Thr Pro Tyr Thr
 1   5

<210> 3001
<211> 387
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3001
gaggtgcagc tggtggagtc tgggggaggc ttggttcagc cgggggggtc cctgagactc 60
tcctgtgtag cctctggatt cacctttagc atttatggca tgagttgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct tttagtggtc gtggtggtac ttcatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca aatccaagaa cacgctgtat 240
ctggaaatga tgagcctgag agccgaggac acggccgtat attactgtgc gaatgatgat 300
ttggattact ttggttcggg agtcaggaac tactaccact acggtatgga cgtctggggc 360
caagggacca cggtcaccgt ctcctca   387

<210> 3002
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3002
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Ser Ile Tyr
            20   25   30
Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Phe Ser Gly Arg Gly Gly Thr Ser Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Lys Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Glu Met Met Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Asn Asp Asp Leu Asp Tyr Phe Gly Ser Gly Val Arg Asn Tyr Tyr
            100   105   110
His Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 3003
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3003
ggattcacct ttagcattta tggc 24

<210> 3004
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3004
Gly Phe Thr Phe Ser Ile Tyr Gly
 1 5

<210> 3005
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3005
tttagtggtc gtggtggtac ttca 24

<210> 3006
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3006
Phe Ser Gly Arg Gly Gly Thr Ser
 1 5

<210> 3007
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 3007
gcgaatgatg atttggatta c 21

<210> 3008
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3008
Ala Asn Asp Asp Leu Asp Tyr
 1 5

<210> 3009
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3009
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atctcctgca gggctagtca gagcattaac aactatttag actggtacca gcagaaacca 120
gggcaggctc caaagctcct gatctatgct gcatccaatc gggccactgg ggtcccagcc 180
aggttcagtg gcagtggatc tgggacagat ttcactctca cgatcagcag cctgcaggct 240
gaagattttg cagtttatta ctgtctgcaa gctaatcaat ctccgttcac tttcggccag 300
gggaccaagg tggagatcaa acga 324

<210> 3010
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3010
Asp Ile Gln Met Thr Gln Ser Pro Pro Ser Leu Ser Val Ser Pro Gly
 1 5 10 15
Glu Arg Ala Thr Ile Ser Cys Arg Ala Ser Gln Ser Ile Asn Asn Tyr
 20 25 30
Leu Asp Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Lys Leu Leu Ile
 35 40 45
Tyr Ala Ala Ser Asn Arg Ala Thr Gly Val Pro Ala Arg Phe Ser Gly
 50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Ala

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

<210> 3011
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3011
cagagcatta acaactat 18

<210> 3012
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3012
Gln Ser Ile Asn Asn Tyr
1 5

<210> 3013
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3013
gctgcatcc 9

<210> 3014
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3014
Ala Ala Ser

1

<210> 3015
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3015
ctgcaagcta atcaatctcc gttcact 27

<210> 3016
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3016
Leu Gln Ala Asn Gln Ser Pro Phe Thr
1 5

<210> 3017
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3017
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt acctatggca tgcattgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggccctt atatggtatg acggaagtaa taaaaactat 180
gcagattccg tgacgggccg attcaccatc tccagagaca attccaagaa cacattgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gacagaaata 300
gcagctcgtc cctttgaata ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 3018
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3018

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Leu Ile Trp Tyr Asp Gly Ser Asn Lys Asn Tyr Ala Asp Ser Val
    50   55   60
Thr 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 Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Thr
            100   105   110
Leu Val Thr Val Ser Ser
        115

<210> 3019
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3019
ggattcacct tcagtaccta tggc 24

<210> 3020
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3020
Gly Phe Thr Phe Ser Thr Tyr Gly
 1   5

<210> 3021
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3021
atatggtatg acggaagtaa taaa 24

<210> 3022
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3022
Ile Trp Tyr Asp Gly Ser Asn Lys
 1   5

<210> 3023
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3023
gcgacagaaa tagcagctcg tccctttgaa tac   33

<210> 3024
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3024
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr
 1   5   10

<210> 3025
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3025
gacatcgtga tgacccagtc tccactctcc ctgcccgtca ctcctggaga gccggcctcc 60
atctcctgca ggtctactca gagtctccta caaattaatg gatacaacta tttggattgg 120
tacctgcaga agccagggca gtctccacag ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggagcaggca cagattttac actgaagatc 240
agcagagtgg aggctgagga tgttggggtt tattactgca tgcaagctct tcaaactccg 300

tacacttttg gccaggggac caaggtggag atcaaacga 339

<210> 3026
<211> 113
<212> PRT
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<220>
<223> synthetic

<400> 3026
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Thr Gln Ser Leu Leu Gln Ile
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
                85   90   95
Leu Gln Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110
Arg

<210> 3027
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3027
cagagtctcc tacaaattaa tggatacaac tat 33

<210> 3028
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3028
Gln Ser Leu Leu Gln Ile Asn Gly Tyr Asn Tyr
 1   5   10

<210> 3029
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3029
ttgggttct 9

<210> 3030
<211> 3
<212> PRT
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<220>
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<400> 3030
Leu Gly Ser
1

<210> 3031
<211> 27
<212> DNA
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<220>
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<400> 3031
atgcaagctc ttcaaactcc gtacact 27

<210> 3032
<211> 9
<212> PRT
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<220>
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<400> 3032
Met Gln Ala Leu Gln Thr Pro Tyr Thr
1 5

<210> 3033
<211> 354
<212> DNA

<213> Artificial Sequence

<220>
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tcctgtgcag cgtctggatt caccttcagt tcctatggca tgcattgggt ccgccaggct 120
ccaggcaagg gactggagtg ggtggccctt atatggtttg acggaagtaa taaaaactat 180
gcagattccg tgacgggccg attcaccatc tccagagaca attccaagaa cacattgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gacagaaata 300
gcagctcgtc cctttgaata ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 3034
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3034
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
 1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
Ala Leu Ile Trp Phe Asp Gly Ser Asn Lys Asn Tyr Ala Asp Ser Val
 50 55 60
Thr 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 Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Thr
 100 105 110
Leu Val Thr Val Ser Ser
 115

<210> 3035
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3035
ggattcacct tcagttccta tggc 24

<210> 3036

<211> 8
<212> PRT
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<220>
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<400> 3036
Gly Phe Thr Phe Ser Ser Tyr Gly
 1   5

<210> 3037
<211> 24
<212> DNA
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<220>
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<400> 3037
atatggtttg acggaagtaa taaa   24

<210> 3038
<211> 8
<212> PRT
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<220>
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<400> 3038
Ile Trp Phe Asp Gly Ser Asn Lys
 1   5

<210> 3039
<211> 33
<212> DNA
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<220>
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<400> 3039
gcgacagaaa tagcagctcg tccctttgaa tac   33

<210> 3040
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<400> 3040
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr
 1   5   10

<210> 3041
<211> 339
<212> DNA
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<220>
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<400> 3041
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atctcctgca ggtctactca gagcctccta cagattaatg gatataacta tttggattgg 120
tacctgcaga agccagggca gtctccacag ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggagcaggca cagattttac actgaagatc 240
agcagagtgg aggctgagga tgttggggtt tattactgca tgcaagctct tcaaactccg 300
tacacttttg gccaggggac caaggtggag atcaaacga   339

<210> 3042
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<212> PRT
<213> Artificial Sequence

<220>
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<400> 3042
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Ser Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Thr Gln Ser Leu Leu Gln Ile
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
                85   90   95
Leu Gln Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110
Arg

<210> 3043

<211> 33
<212> DNA
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<220>
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<400> 3043
cagagcctcc tacagattaa tggatataac tat 33

<210> 3044
<211> 11
<212> PRT
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<220>
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<400> 3044
Gln Ser Leu Leu Gln Ile Asn Gly Tyr Asn Tyr
1 5 10

<210> 3045
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3045
ttgggttct 9

<210> 3046
<211> 3
<212> PRT
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<220>
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<400> 3046
Leu Gly Ser
1

<210> 3047
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3047
atgcaagctc ttcaaactcc gtacact 27

<210> 3048
<211> 9
<212> PRT
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<220>
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<400> 3048
Met Gln Ala Leu Gln Thr Pro Tyr Thr
 1 5

<210> 3049
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3049
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ccagggaagg gactggaata tgtttcaggt attagtagta agggggtag cacatattat 180
gcagactctg tgaagggcag attcaccatc tccagagaca attccaagaa tatactgtat 240
cttcaaatgg gcagactgag acctgaggac atggctgtgt attactgtgc gagagaggga 300
caactttggt actttgacta ctggggccag ggaaccacgg tcaccgtctc ctca 354

<210> 3050
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3050
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
Asp Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Val
 35 40 45
Ser Gly Ile Ser Ser Lys Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Ile Leu Tyr
65 70 75 80
Leu Gln Met Gly Arg Leu Arg Pro Glu Asp Met Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Glu Gly Gln Leu Trp Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
100 105 110
Thr Val Thr Val Ser Ser
115

<210> 3051
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3051
ggattcacct tcagtagcta tgat 24

<210> 3052
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3052
Gly Phe Thr Phe Ser Ser Tyr Asp
1 5

<210> 3053
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3053
attagtagta agggggtag caca 24

<210> 3054
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3054
Ile Ser Ser Lys Gly Gly Ser Thr
 1   5

<210> 3055
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3055
gcgagagagg gacaactttg gtactttgac tac   33

<210> 3056
<211> 11
<212> PRT
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<220>
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<400> 3056
Ala Arg Glu Gly Gln Leu Trp Tyr Phe Asp Tyr
 1   5   10

<210> 3057
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3057
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ctctcctgca gggccagtca gagtgttagt agctacttag cctggtacca acagaaacct 120
ggccaggctc ccagactcct catctatgct gcatccaaca gggccactgg catcccagcc 180
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240
gaagattttg cagtttatta ctgtcagcag cgttccaact ggcctctcac tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 3058
<211> 108
<212> PRT
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<220>

<223> synthetic

<400> 3058

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Asp Ile Val Met Thr Gln Ser Pro Ala 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 Tyr
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65                  70                  75                  80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Ser Asn Trp Pro Leu
                85                  90                  95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 3059
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3059
cagagtgtta gtagctac 18

<210> 3060
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3060

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Gln Ser Val Ser Ser Tyr
 1               5
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<210> 3061
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3061

gctgcatcc 9

<210> 3062
<211> 3
<212> PRT
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<220>
<223> synthetic

<400> 3062
Ala Ala Ser
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<210> 3063
<211> 27
<212> DNA
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<220>
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<400> 3063
cagcagcgtt ccaactggcc tctcact 27

<210> 3064
<211> 9
<212> PRT
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<220>
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<400> 3064
Gln Gln Arg Ser Asn Trp Pro Leu Thr
 1   5

<210> 3065
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3065
caggtgcagc tggtggagtc tgggggaggc ttggtccagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt catcttcagt agctatgata tgcactgggt ccgccaggct 120
ccagggaagg gactggaata tgtttcaggt attagtacta agggggaag tacatattat 180
gcagactctg tgaaggacag attcaccatc tccagagaca attccaagaa cacgctatat 240

cttcaaatgg gcagcctgag agctgaggac atggctgtat attactgtgc gagagaggga 300
caactttggt actttgacta ctggggccag ggaaccacgg tcaccgtctc ctca 354

<210> 3066
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3066
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ile Phe Ser Ser Tyr
20 25 30
Asp Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Val
35 40 45
Ser Gly Ile Ser Thr Lys Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60
Lys Asp Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Gly Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Glu Gly Gln Leu Trp Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
100 105 110
Thr Val Thr Val Ser Ser
115

<210> 3067
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3067
ggattcatct tcagtagcta tgat 24

<210> 3068
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3068
Gly Phe Ile Phe Ser Ser Tyr Asp
1 5

<210> 3069
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3069
attagtacta agggggaag taca 24

<210> 3070
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3070
Ile Ser Thr Lys Gly Gly Ser Thr
1 5

<210> 3071
<211> 33
<212> DNA
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<220>
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<400> 3071
gcgagagagg gacaactttg gtactttgac tac 33

<210> 3072
<211> 11
<212> PRT
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<220>
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<400> 3072
Ala Arg Glu Gly Gln Leu Trp Tyr Phe Asp Tyr
1 5 10

<210> 3073
<211> 324

<212> DNA
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<220>
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ctctcctgca gggccagtca gactgttaga agctacttag cctggtacca acagaaacct 120
ggccaggctc ccagactcct catctatact gcatctaaca gggccactgg catcccagcc 180
aggttcagtg gcagtgggtc tgggacagac ttcatcctca ccatcagcag cctagagcct 240
gaagattttg cagtttatta ctgtcagcag cgttccaact ggcctctcac tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 3074
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3074
Asp Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Thr Val Arg Ser Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Thr Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Ile Leu Thr Ile Ser Ser Leu Glu Pro
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Ser Asn Trp Pro Leu
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3075
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3075
cagactgtta gaagctac 18

<210> 3076
<211> 6

<212> PRT
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<220>
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<400> 3076
Gln Thr Val Arg Ser Tyr
 1   5

<210> 3077
<211> 9
<212> DNA
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<220>
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<400> 3077
actgcatct   9

<210> 3078
<211> 3
<212> PRT
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<220>
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<400> 3078
Thr Ala Ser
 1

<210> 3079
<211> 27
<212> DNA
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<220>
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<400> 3079
cagcagcgtt ccaactggcc tctcact   27

<210> 3080
<211> 9
<212> PRT
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<220>

<223> synthetic

<400> 3080
Gln Gln Arg Ser Asn Trp Pro Leu Thr
 1   5

<210> 3081
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3081
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ccaggcaagg ggctggagtg ggtggccctt atatggtatg acggaagtaa taaaaactat 180
gcagattccg tgacgggccg attcaccatc tccagagaca attccaagaa cacattgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gacagaaata 300
gcagctcgtc cctttgaata ctggggccag ggaaccctgg tcaccgtctc ctca   354

<210> 3082
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<212> PRT
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<220>
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Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Leu Ile Trp Tyr Asp Gly Ser Asn Lys Asn Tyr Ala Asp Ser Val
    50   55   60
Thr 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 Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Thr
            100   105   110
Leu Val Thr Val Ser Ser
        115

<210> 3083
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3083
ggattcacct tcagtaccta tggc 24

<210> 3084
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3084
Gly Phe Thr Phe Ser Thr Tyr Gly
1 5

<210> 3085
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3085
atatggtatg acggaagtaa taaa 24

<210> 3086
<211> 8
<212> PRT
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<220>
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<400> 3086
Ile Trp Tyr Asp Gly Ser Asn Lys
1 5

<210> 3087
<211> 33
<212> DNA
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<400> 3087
gcgacagaaa tagcagctcg tccctttgaa tac 33

<210> 3088
<211> 11
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<400> 3088
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr
 1 5 10

<210> 3089
<211> 339
<212> DNA
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<400> 3089
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tacctgcaga agccagggca gtctccacag ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggagcaggca cagattttac actaaagatc 240
agcagagtgg aggctgagga tgttggggtt tattactgca tgcaagctct tcaaactccg 300
tacacttttg gccaggggac caaggtggag atcaaacga 339

<210> 3090
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3090
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Thr Gln Ser Leu Leu Gln Ile
            20 25 30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35 40 45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50 55 60
Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile

65 70 75 80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
85 90 95
Leu Gln Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110
Arg

<210> 3091
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3091
cagagtctcc tacaaattaa tggatacaac tat 33

<210> 3092
<211> 11
<212> PRT
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<220>
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<400> 3092
Gln Ser Leu Leu Gln Ile Asn Gly Tyr Asn Tyr
1 5 10

<210> 3093
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3093
ttgggttct 9

<210> 3094
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3094
Leu Gly Ser
 1

<210> 3095
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3095
atgcaagctc ttcaaactcc gtacact 27

<210> 3096
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3096
Met Gln Ala Leu Gln Thr Pro Tyr Thr
 1 5

<210> 3097
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3097
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tcctgtaagg gttctggata cagctttacc aactactgga tcggctgggt gcgccagatg 120
cccggaaaag gcctggagtg gatggggatc atctatcctg gtgactctga taccagaaac 180
agcccgtcct tccaaggcca ggtcaccatc tcagccgaca agaccatcag caccgcctac 240
ctgcagtgga gcagcctgaa ggcctcggac accgccatgt attactgtgc gaggtcggca 300
gatttttgga gtggttatcc ctttgactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 3098
<211> 121
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 3098

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 1               5                  10                  15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Asn Tyr
            20                  25                  30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35                  40                  45
Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Asn Ser Pro Ser Phe
    50                  55                  60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Thr Ile Ser Thr Ala Tyr
65                  70                  75                  80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
                85                  90                  95
Ala Arg Ser Ala Asp Phe Trp Ser Gly Tyr Pro Phe Asp Tyr Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 3100
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<220>
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<400> 3100

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Gly Tyr Ser Phe Thr Asn Tyr Trp
 1               5
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<210> 3101
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<220>
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<400> 3101
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<210> 3102
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<212> PRT
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<220>
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<400> 3102
Ile Tyr Pro Gly Asp Ser Asp Thr
1 5

<210> 3103
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<212> DNA
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<400> 3103
gcgaggtcgg cagatttttg gagtggttat ccctttgact ac 42

<210> 3104
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<400> 3104
Ala Arg Ser Ala Asp Phe Trp Ser Gly Tyr Pro Phe Asp Tyr
1 5 10

<210> 3105
<211> 324
<212> DNA
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<400> 3105
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atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120

gggaaagccc ctaacctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca acatcagcag tctgcaacct 240
gaagattttt caacttacta ttgtcaacag acctacagta tcccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 3106
<211> 108
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<220>
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<400> 3106
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1 5 10 15
Asp Arg Leu Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
20 25 30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
35 40 45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Asn Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ser Thr Tyr Tyr Cys Gln Gln Thr Tyr Ser Ile Pro Tyr
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 3107
<211> 18
<212> DNA
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<400> 3107
cagagcatta gcagctat 18

<210> 3108
<211> 6
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<220>
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<400> 3108
Gln Ser Ile Ser Ser Tyr
1 5

<210> 3109
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3109
gctgcatcc 9

<210> 3110
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<220>
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<400> 3110
Ala Ala Ser
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<210> 3111
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<212> DNA
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<220>
<223> synthetic

<400> 3111
caacagacct acagtatccc gtacact 27

<210> 3112
<211> 9
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<220>
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<400> 3112
Gln Gln Thr Tyr Ser Ile Pro Tyr Thr
1 5

<210> 3113
<211> 354

<212> DNA
<213> Artificial Sequence

<220>
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tcctgtgcag cgtctggatt caccttcagt tcctatggca tgcattgggt ccgccaggct 120
ccaggcaagg gactggagtg ggtggccctt atatggtatg acggaagtaa taaaaactat 180
gcagattccg tgatgggccg attcaccatc tccagagaca attccaggag cacattgttt 240
ctgcaaatga acagcctgag agccgaggac acggctcttt attactgtgc gacagaaata 300
gcatctcgtc cctttgaata ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 3114
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<212> PRT
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<220>
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<400> 3114
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Leu Ile Trp Tyr Asp Gly Ser Asn Lys Asn Tyr Ala Asp Ser Val
    50   55   60
Met Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Arg Ser Thr Leu Phe
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Thr Glu Ile Ala Ser Arg Pro Phe Glu Tyr Trp Gly Gln Gly Thr
            100   105   110
Leu Val Thr Val Ser Ser
        115

<210> 3115
<211> 24
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<220>
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<400> 3115
ggattcacct tcagttccta tggc 24

<210> 3116
<211> 8
<212> PRT
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<220>
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<400> 3116
Gly Phe Thr Phe Ser Ser Tyr Gly
 1   5

<210> 3117
<211> 24
<212> DNA
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<220>
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<400> 3117
atatggtatg acggaagtaa taaa 24

<210> 3118
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3118
Ile Trp Tyr Asp Gly Ser Asn Lys
 1   5

<210> 3119
<211> 33
<212> DNA
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<220>
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<400> 3119
gcgacagaaa tagcatctcg tccctttgaa tac 33

<210> 3120
<211> 11
<212> PRT
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<220>
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<400> 3120
Ala Thr Glu Ile Ala Ser Arg Pro Phe Glu Tyr
 1   5   10

<210> 3121
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
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atctcctgca ggtcttctca gagcctccta cagattaatg gatacaacta tttggattgg 120
tacctgcaga agccagggca gtctccacag ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggagcaggca cagattttac actgaagatc 240
agcagagtgg aggctgagga tattgggatt tattactgca tgcaagctct tcaaactccg 300
tacacttttg gccaggggac caaggtggag atcaaacga   339

<210> 3122
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3122
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Gln Ile
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Ile Gly Ile Tyr Tyr Cys Met Gln Ala
                85   90   95
Leu Gln Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110
Arg

<210> 3123
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3123
cagagcctcc tacagattaa tggatacaac tat 33

<210> 3124
<211> 11
<212> PRT
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<220>
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<400> 3124
Gln Ser Leu Leu Gln Ile Asn Gly Tyr Asn Tyr
 1 5 10

<210> 3125
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<212> DNA
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<220>
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<400> 3125
ttgggttct 9

<210> 3126
<211> 3
<212> PRT
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<400> 3126
Leu Gly Ser
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<210> 3127
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<400> 3127
atgcaagctc ttcaaactcc gtacact 27

<210> 3128
<211> 9
<212> PRT
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<400> 3128
Met Gln Ala Leu Gln Thr Pro Tyr Thr
 1 5

<210> 3129
<211> 363
<212> DNA
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<220>
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<400> 3129
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgttg tctatggtgg gtccttaagt ggttactact ggagcttgat ccgccagtcc 120
ccagggaagg ggctggagtg gattggggaa atcgatcata ctggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatatca gtggacacgt ccaagaacca gttctccctg 240
aagctgagct ctgtgaccgc cgcggacacg gctttgtatt actgtgcgag aggctctctt 300
ataacagatc gagactggta tttcgatatc tggggccgtg gcaccctggt caccgtctcc 360
tca 363

<210> 3130
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3130
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1 5 10 15
Thr Leu Ser Leu Thr Cys Val Val Tyr Gly Gly Ser Leu Ser Gly Tyr
 20 25 30
Tyr Trp Ser Leu Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45

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

<210> 3131
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3131
ggtgggtcct taagtggtta ctac 24

<210> 3132
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3132
Gly Gly Ser Leu Ser Gly Tyr Tyr
1 5

<210> 3133
<211> 21
<212> DNA
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<400> 3133
atcgatcata ctggaagcac c 21

<210> 3134
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3134
Ile Asp His Thr Gly Ser Thr
 1   5

<210> 3135
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3135
gcgagaggct ctcttataac agatcgagac tggtatttcg atatc   45

<210> 3136
<211> 15
<212> PRT
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<220>
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<400> 3136
Ala Arg Gly Ser Leu Ile Thr Asp Arg Asp Trp Tyr Phe Asp Ile
 1   5   10   15

<210> 3137
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3137
gacatcgtga tgacccagtc tccagccacc ctgtctgtgt ctccagggga aagagtcacc 60
ctctcctgca gggccagtca gagtgttacc agcaacttag cctggtacca gcagaaacct 120
gcccaggctc ccaggctcct catctatgct gcatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagaa tacactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcaacac tataataact ggccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 3138
<211> 108
<212> PRT
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<220>
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<400> 3138
Asp Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Val Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Thr Ser Asn
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Ala Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Tyr Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Tyr Asn Asn Trp Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3139
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3139
cagagtgtta ccagcaac   18

<210> 3140
<211> 6
<212> PRT
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<220>
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<400> 3140
Gln Ser Val Thr Ser Asn
 1   5

<210> 3141
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3141
gctgcatcc 9

<210> 3142
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3142
Ala Ala Ser
 1

<210> 3143
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3143
caacactata ataactggcc gtacact 27

<210> 3144
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3144
Gln His Tyr Asn Asn Trp Pro Tyr Thr
 1   5

<210> 3145
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3145
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc agctatacca tgagctgggt ccgccaggct 120

ccagggaagg ggctggagtg ggtctcaact attattttta gtggtctttt cacatactac 180
gcggactccg tgaagggccg tttcaccatc tccagagaca attccaagaa caccctcttt 240
ctgcaaatga atagcctggg ggccgaggac acggccatat attactgtgc gaaagcctca 300
gctacaataa ctacgaagga cggtatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 3146
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3146
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
Thr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Thr Ile Ile Phe Ser Gly Leu Phe 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 Phe
65   70   75   80
Leu Gln Met Asn Ser Leu Gly Ala Glu Asp Thr Ala Ile Tyr Tyr Cys
                85   90   95
Ala Lys Ala Ser Ala Thr Ile Thr Thr Lys Asp Gly Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 3147
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3147
ggattcacct ttagcagcta tacc 24

<210> 3148
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3148
Gly Phe Thr Phe Ser Ser Tyr Thr
 1   5

<210> 3149
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3149
attattttta gtggtctttt caca   24

<210> 3150
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3150
Ile Ile Phe Ser Gly Leu Phe Thr
 1   5

<210> 3151
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3151
gcgaaagcct cagctacaat aactacgaag gacggtatgg acgtc   45

<210> 3152
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3152
Ala Lys Ala Ser Ala Thr Ile Thr Thr Lys Asp Gly Met Asp Val
 1   5   10   15

<210> 3153
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3153
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagttcct gatctctgct gcatccagtt tacaaagtgg ggtcccttca 180
aggttcagcg gcagtggatc tgacacagat ttcactctca ccatcagcag cctgcagact 240
gaagattttg caacttatta ctgtctacaa gatttcaatt tccctcggac attcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 3154
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3154
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
            20   25   30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Phe 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 Asp Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Thr
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Asp Phe Asn Phe Pro Arg
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3155
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3155
cagggcatta gaaatgat 18

<210> 3156
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3156
Gln Gly Ile Arg Asn Asp
 1   5

<210> 3157
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3157
gctgcatcc   9

<210> 3158
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3158
Ala Ala Ser
 1

<210> 3159
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3159
ctacaagatt tcaatttccc tcggaca   27

<210> 3160
<211> 9
<212> PRT

<213> Artificial Sequence

<220>
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<400> 3160
Leu Gln Asp Phe Asn Phe Pro Arg Thr
 1   5

<210> 3161
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3161
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acctgcgctg tctatggtgg gtccctcagt ggttactatt ggagctggat ccgccagccc 120
ccagggaagg ggctggcgtg gattggggag atcgatcata ctggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aggctgagtt ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgag aggctctcgt 300
ataacagatc gagactggta cttcgatctc tggggccgtg gcaccctggt caccgtctcc 360
tca   363

<210> 3162
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3162
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Leu Ser Gly Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Ala Trp Ile
        35   40   45
Gly Glu Ile Asp His Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Arg Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Ser Arg Ile Thr Asp Arg Asp Trp Tyr Phe Asp Leu Trp Gly
            100   105   110
Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 3163
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3163
ggtgggtccc tcagtggtta ctat 24

<210> 3164
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3164
Gly Gly Ser Leu Ser Gly Tyr Tyr
1 5

<210> 3165
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3165
atcgatcata ctggaagcac c 21

<210> 3166
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3166
Ile Asp His Thr Gly Ser Thr
1 5

<210> 3167
<211> 45

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3167
gcgagaggct ctcgtataac agatcgagac tggtacttcg atctc 45

<210> 3168
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3168
Ala Arg Gly Ser Arg Ile Thr Asp Arg Asp Trp Tyr Phe Asp Leu
 1   5   10   15

<210> 3169
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3169
gacatcgtga tgacccagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgta gggccagtca gagtgttagt agccacttag cctggtacca ccagaaacct 120
ggccaggctc ccaggctcct cctctattct ggatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcgctctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcagcaa tataatgact ggccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 3170
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3170
Asp Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser His
            20   25   30
Leu Ala Trp Tyr His Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Leu

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        35                  40                  45
Tyr Ser Gly Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Ala Leu Thr Ile Ser Ser Leu Gln Ser
65                  70                  75                  80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asp Trp Pro Tyr
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 3171
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3171
cagagtgtta gtagccac 18

<210> 3172
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3172
Gln Ser Val Ser Ser His
 1   5

<210> 3173
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3173
tctggatcc 9

<210> 3174
<211> 3
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 3174
Ser Gly Ser
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<210> 3175
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3175
cagcaatata atgactggcc gtacact 27

<210> 3176
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3176
Gln Gln Tyr Asn Asp Trp Pro Tyr Thr
 1 5

<210> 3177
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3177
caggtgcagc tggtggagtc tgggggaggc ttggtacagc cagggcggtc cctgagactc 60
tcctgtacag tttctggact cacctttggt gattatgcta tgacctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtaggtttc attagaagca aagcttatgg tgggacaaca 180
gaatacgccg cgtctgtgaa aggcagattc accatctcaa gagatgattc caaaagcatc 240
gcctatctgc aaatgaacag cctgaagacc gaggacacag ccgtgtatta ctgtagttcg 300
tccggacctg actactgggg ccagggaacc ctggtcaccg tctcctca 348

<210> 3178
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3178
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Thr Val Ser Gly Leu Thr Phe Gly Asp Tyr
            20   25   30
Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Gly Phe Ile Arg Ser Lys Ala Tyr Gly Gly Thr Thr Glu Tyr Ala Ala
    50   55   60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Ser Ile
65   70   75   80
Ala Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Ser Ser Ser Gly Pro Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 3179
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3179
ggactcacct ttggtgatta tgct   24

<210> 3180
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3180
Gly Leu Thr Phe Gly Asp Tyr Ala
 1   5

<210> 3181
<211> 30
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 3181
attagaagca aagcttatgg tgggacaaca 30

<210> 3182
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3182
Ile Arg Ser Lys Ala Tyr Gly Gly Thr Thr
1 5 10

<210> 3183
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3183
agttcgtccg gacctgacta c 21

<210> 3184
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3184
Ser Ser Ser Gly Pro Asp Tyr
1 5

<210> 3185
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3185
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60

atcacttgcc gggcaagtca gggcattaga aatgatttag tctggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatgct gcatccggtt tgcaaagtgg ggtcccatcg 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacaa cataatagtt acccgtggac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 3186
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3186
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
            20   25   30
Leu Val Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg 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 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 Trp
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3187
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3187
cagggcatta gaaatgat 18

<210> 3188
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3188
Gln Gly Ile Arg Asn Asp

1 5

<210> 3189
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3189
gctgcatcc 9

<210> 3190
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3190
Ala Ala Ser
1

<210> 3191
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3191
ctacaacata atagttaccc gtggacg 27

<210> 3192
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3192
Leu Gln His Asn Ser Tyr Pro Trp Thr
1 5

<210> 3193

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

<220>
<223> synthetic

<400> 3193
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgctg tctctggtgg gaccctcagt ccttactatt ggagctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcgatcata ctggaagtac caacttcaat 180
ccgtccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aatctgaact ctgtgaccgc cgcggacacg gctatctatt tctgtgcgag aggctctctt 300
ataacatctc gagactggta cttcgatctc tggggccgtg gcaccctggt caccgtctcc 360
tca 363

<210> 3194
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3194
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Gly Thr Leu Ser Pro Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asp His Thr Gly Ser Thr Asn Phe 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
Asn Leu Asn Ser Val Thr Ala Ala Asp Thr Ala Ile Tyr Phe Cys Ala
                85   90   95
Arg Gly Ser Leu Ile Thr Ser Arg Asp Trp Tyr Phe Asp Leu Trp Gly
            100   105   110
Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 3195
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3195

ggtgggaccc tcagtcctta ctat 24

<210> 3196
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3196
Gly Gly Thr Leu Ser Pro Tyr Tyr
1 5

<210> 3197
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3197
atcgatcata ctggaagtac c 21

<210> 3198
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3198
Ile Asp His Thr Gly Ser Thr
1 5

<210> 3199
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3199
gcgagaggct ctcttataac atctcgagac tggtacttcg atctc 45

<210> 3200
<211> 15

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3200
Ala Arg Gly Ser Leu Ile Thr Ser Arg Asp Trp Tyr Phe Asp Leu
 1   5   10   15

<210> 3201
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3201
gacatcgtga tgacccagtc tccagccacc ctgtctgtgt ctccagggga aagaggcacc 60
ctctcctgca gggccagtca gagtcttagc agccacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcttccgcca gggccactgg catcccagcc 180
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcagcag tatgataact ggccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 3202
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3202
Asp Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Gly Thr Leu Ser Cys Arg Ala Ser Gln Ser Leu Ser Ser His
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Ala Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asp Asn Trp Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3203
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3203
cagagtctta gcagccac 18

<210> 3204
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3204
Gln Ser Leu Ser Ser His
1 5

<210> 3205
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3205
ggtgcttcc 9

<210> 3206
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3206
Gly Ala Ser
1

<210> 3207
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3207
cagcagtatg ataactggcc gtacact 27

<210> 3208
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3208
Gln Gln Tyr Asp Asn Trp Pro Tyr Thr
1 5

<210> 3209
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3209
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgctg tctatggtgg gtccttccgt ggttactact ggaactggat ccgccagccc 120
ccggggaagg ggctggagtg gattggggaa atcaatcata gtggaagcac cacctacaac 180
ccgtccctca agagtcgatt caccatgtca gtggacacgt ccaagaacca gttctccctg 240
attctgagct ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgag aaatgagcta 300
actggagatt gggttgcttt tgatatctgg ggccaaggga caatggtcac cgtctcctca 360

<210> 3210
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3210
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
1 5 10 15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Arg Gly Tyr
20 25 30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

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

<210> 3211
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3211
ggtgggtcct tccgtggtta ctac 24

<210> 3212
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3212
Gly Gly Ser Phe Arg Gly Tyr Tyr
1 5

<210> 3213
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3213
atcaatcata gtggaagcac c 21

<210> 3214
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3214
Ile Asn His Ser Gly Ser Thr
 1   5

<210> 3215
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3215
gcgagaaatg agctaactgg agattgggtt gcttttgata tc   42

<210> 3216
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3216
Ala Arg Asn Glu Leu Thr Gly Asp Trp Val Ala Phe Asp Ile
 1   5   10

<210> 3217
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3217
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga gagagccacc 60
ctctcctgca gggccagtca gagtgttagc gccagctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatcttt ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta tttctgtcag cagtatggta gctcaccgtg gacgttcggc 300
caagggacca aggtggagat caaacga   327

<210> 3218
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3218
Asp Ile Val Met 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 Ala Ser
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Phe Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Phe Cys Gln Gln Tyr Gly Ser Ser Pro
                85   90   95
Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3219
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3219
cagagtgtta gcgccagcta c   21

<210> 3220
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3220
Gln Ser Val Ser Ala Ser Tyr
 1   5

<210> 3221
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3221
ggtgcatcc 9

<210> 3222
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3222
Gly Ala Ser
1

<210> 3223
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3223
cagcagtatg gtagctcacc gtggacg 27

<210> 3224
<211> 9
<212> PRT
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<220>
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<400> 3224
Gln Gln Tyr Gly Ser Ser Pro Trp Thr
1 5

<210> 3225
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3225
caggtgcagc tggtgcagtg gggcgcagga ctgttgatgc cttcggagac cctgtccctc 60
acctgcgctg tctatggtgg gtccttcagt ggttactact ggagctgggt ccgccagccc 120

ccagggaagg ggctggagtg gattggggaa atcgatcata gtggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aagctgagct ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgag aagggagcta 300
actggggatt ggggtgcttt tgatatctgg ggccaaggga caatggtcac cgtctcctca 360

<210> 3226
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3226
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Met Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Gly Tyr
            20   25   30
Tyr Trp Ser Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asp His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Arg Glu Leu Thr Gly Asp Trp Gly Ala Phe Asp Ile Trp Gly Gln
            100   105   110
Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 3227
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3227
ggtgggtcct tcagtggtta ctac 24

<210> 3228
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3228
Gly Gly Ser Phe Ser Gly Tyr Tyr
 1   5

<210> 3229
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3229
atcgatcata gtggaagcac c   21

<210> 3230
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3230
Ile Asp His Ser Gly Ser Thr
 1   5

<210> 3231
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3231
gcgagaaggg agctaactgg ggattggggt gcttttgata tc   42

<210> 3232
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3232
Ala Arg Arg Glu Leu Thr Gly Asp Trp Gly Ala Phe Asp Ile
 1   5   10

<210> 3233
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3233
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc ggcagctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cagtatggta gctcaccgtg gacgttcggc 300
caagggacca aggtggagat caaacga 327

<210> 3234
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3234
Asp Ile Val Met 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 Gly Ser
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
                85   90   95
Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3235
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3235
cagagtgtta gcggcagcta c 21

<210> 3236
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3236
Gln Ser Val Ser Gly Ser Tyr
 1   5

<210> 3237
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3237
ggtgcatcc   9

<210> 3238
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3238
Gly Ala Ser
 1

<210> 3239
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3239
cagcagtatg gtagctcacc gtggacg   27

<210> 3240
<211> 9
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 3240
Gln Gln Tyr Gly Ser Ser Pro Trp Thr
 1   5

<210> 3241
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3241
gaggtgcagc tggtggagtc tgggggaggc ttggtactgc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttaac agttacgcct tgacctgggt ccgccaggct 120
ccagggaggg ggctggaatg ggtctcaact attattttca gtggtggtat catatggtac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acaccatgag agccgaggac acggccatat attactgtgc gaaagcctca 300
gccactataa cgacaaagga cggtttggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca   366

<210> 3242
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3242
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Leu Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Ser Tyr
            20   25   30
Ala Leu Thr Trp Val Arg Gln Ala Pro Gly Arg Gly Leu Glu Trp Val
        35   40   45
Ser Thr Ile Ile Phe Ser Gly Gly Ile Ile Trp 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 Thr Met Arg Ala Glu Asp Thr Ala Ile Tyr Tyr Cys
                85   90   95
Ala Lys Ala Ser Ala Thr Ile Thr Thr Lys Asp Gly Leu Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 3243
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3243
ggattcacct ttaacagtta cgcc 24

<210> 3244
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3244
Gly Phe Thr Phe Asn Ser Tyr Ala
1 5

<210> 3245
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3245
attattttca gtggtggtat cata 24

<210> 3246
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3246
Ile Ile Phe Ser Gly Gly Ile Ile
1 5

<210> 3247
<211> 45

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3247
gcgaaagcct cagccactat aacgacaaag gacggtttgg acgtc 45

<210> 3248
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3248
Ala Lys Ala Ser Ala Thr Ile Thr Thr Lys Asp Gly Leu Asp Val
1 5 10 15

<210> 3249
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3249
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atcacttgcc gggcaagtca gggcatcaga aatgatttag gctggtatca gcagagacca 120
gggaaagccc ctacgctcct gatctatgct gcatccagtt tacaaagtgg ggtcccatct 180
aggttcagcg gcagtggatc tggcacagat ttcactctca ccatcagcag cctgcagcct 240
gaggattttg caacttatta ctgtctacag gattacaatt accctcggac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 3250
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3250
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Asn Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
20 25 30
Leu Gly Trp Tyr Gln Gln Arg Pro Gly Lys Ala Pro Thr Leu Leu Ile

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        35                  40                  45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Asp Tyr Asn Tyr Pro Arg
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 3251
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<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3251
cagggcatca gaaatgat 18

<210> 3252
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3252
Gln Gly Ile Arg Asn Asp
 1   5

<210> 3253
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3253
gctgcatcc 9

<210> 3254
<211> 3
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 3254
Ala Ala Ser
 1

<210> 3255
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3255
ctacaggatt acaattaccc tcggacg 27

<210> 3256
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3256
Leu Gln Asp Tyr Asn Tyr Pro Arg Thr
 1   5

<210> 3257
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3257
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgttg tgtatagtgg atccctcagt ggttactact ggagctggat ccggcagtcc 120
ccagggaagg gactggagtg gattggggaa atcgatcata ctggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctcactg 240
aggctgacct ctgtgaccgc cgcggacacg gctgtttatt actgtgcgag agggtctcgt 300
ataacagatc gagactggta cttcgatccc tggggccgtg gctccctggt caccgtctcc 360
tca 363

<210> 3258
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3258
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Val Val Tyr Ser Gly Ser Leu Ser Gly Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asp His Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Arg Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Ser Arg Ile Thr Asp Arg Asp Trp Tyr Phe Asp Pro Trp Gly
            100   105   110
Arg Gly Ser Leu Val Thr Val Ser Ser
        115   120

<210> 3259
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3259
agtggatccc tcagtggtta ctac   24

<210> 3260
<211> 8
<212> PRT
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<220>
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<400> 3260
Ser Gly Ser Leu Ser Gly Tyr Tyr
 1   5

<210> 3261
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3261
atcgatcata ctggaagcac c 21

<210> 3262
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3262
Ile Asp His Thr Gly Ser Thr
1 5

<210> 3263
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3263
gcgagagggt ctcgtataac agatcgagac tggtacttcg atccc 45

<210> 3264
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3264
Ala Arg Gly Ser Arg Ile Thr Asp Arg Asp Trp Tyr Phe Asp Pro
1 5 10 15

<210> 3265
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3265

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ctctcctgca ggaccagtca gagtattacc agccacttcg cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctacagtct 240
gaagattttg cagtttatta ctgtcagcaa tatgataact ggccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 3266
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3266
Asp Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Thr Ser Gln Ser Ile Thr Ser His
            20   25   30
Phe Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asp Asn Trp Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3267
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3267
cagagtatta ccagccac 18

<210> 3268
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3268

Gln Ser Ile Thr Ser His
1 5

<210> 3269
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3269
ggtgcatcc 9

<210> 3270
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3270
Gly Ala Ser
1

<210> 3271
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3271
cagcaatatg ataactggcc gtacact 27

<210> 3272
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3272
Gln Gln Tyr Asp Asn Trp Pro Tyr Thr
1 5

<210> 3273
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3273
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcactg tctatggtgg gaccctcagt ggttactatt ggagctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcgatcata ctggaagcac caacttcaat 180
ccgtccctca agagtcgagt caccatatca gtagacccgt ccaagaacca gttctccctg 240
aatctgagct ctgtgaccgc cgcggacacg gctgtgtatt tctgtgcgag aggctctctt 300
ataacatctc gagactggtt cttcgatctc tggggccgtg gcaccctggt caccgtctcc 360
tca 363

<210> 3274
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3274
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Tyr Gly Gly Thr Leu Ser Gly Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asp His Thr Gly Ser Thr Asn Phe Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Pro Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Asn Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Phe Cys Ala
                85   90   95
Arg Gly Ser Leu Ile Thr Ser Arg Asp Trp Phe Phe Asp Leu Trp Gly
            100   105   110
Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 3275
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3275
ggtgggaccc tcagtggtta ctat 24

<210> 3276
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3276
Gly Gly Thr Leu Ser Gly Tyr Tyr
1 5

<210> 3277
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3277
atcgatcata ctggaagcac c 21

<210> 3278
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3278
Ile Asp His Thr Gly Ser Thr
1 5

<210> 3279
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3279
gcgagaggct ctcttataac atctcgagac tggttcttcg atctc 45

<210> 3280

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

<220>
<223> synthetic

<400> 3280
Ala Arg Gly Ser Leu Ile Thr Ser Arg Asp Trp Phe Phe Asp Leu
 1   5   10   15

<210> 3281
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3281
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ctctcctgca gggccagtca gagtcttagc agcaacttag cctggtacca gcagagacct 120
ggccaggctc ccaggctcct catctatggt gcatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttattg ctgtcagcaa tatgataact ggccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 3282
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3282
Asp Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Leu Ser Ser Asn
            20   25   30
Leu Ala Trp Tyr Gln Gln Arg Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Cys Cys Gln Gln Tyr Asp Asn Trp Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3283
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3283
cagagtctta gcagcaac 18

<210> 3284
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3284
Gln Ser Leu Ser Ser Asn
1 5

<210> 3285
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3285
ggtgcatcc 9

<210> 3286
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3286
Gly Ala Ser
1

<210> 3287
<211> 27
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 3287
cagcaatatg ataactggcc gtacact 27

<210> 3288
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3288
Gln Gln Tyr Asp Asn Trp Pro Tyr Thr
 1 5

<210> 3289
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3289
caggtgcagc tggtgcagtg gggcgcaggc ctgttgaagc cttcggagac cctgtccctc 60
acctgcgctg tctatggtgg gtccttcagt ggttactact ggagctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcgatcata ctggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatttca gtagacacgt ccaagaacca gttctccctg 240
aagctgagtt ctgtgaccgc cgcggacacg gctgtgtatt attgtgcgag aggctctctt 300
ataacatctc gagactggca cttcgatctc tggggccgtg gcaccctggt caccgtctcc 360
tca 363

<210> 3290
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3290
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1 5 10 15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Gly Tyr
 20 25 30
Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile

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


<210> 3291
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3291
ggtgggtcct tcagtggtta ctac                                          24

<210> 3292
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3292
Gly Gly Ser Phe Ser Gly Tyr Tyr
 1               5


<210> 3293
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3293
atcgatcata ctggaagcac c                                             21

<210> 3294
<211> 7
<212> PRT
<213> Artificial Sequence
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<220>
<223> synthetic

<400> 3294
Ile Asp His Thr Gly Ser Thr
 1   5

<210> 3295
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3295
gcgagaggct ctcttataac atctcgagac tggcacttcg atctc   45

<210> 3296
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3296
Ala Arg Gly Ser Leu Ile Thr Ser Arg Asp Trp His Phe Asp Leu
 1   5   10   15

<210> 3297
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3297
gacatcgtga tgacccagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcttccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcagcag tatgataact ggccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 3298
<211> 108
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 3298
Asp Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asp Asn Trp Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3299
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3299
cagagtgtta gcagcaac   18

<210> 3300
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3300
Gln Ser Val Ser Ser Asn
 1   5

<210> 3301
<211> 9
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 3301
ggtgcttcc 9

<210> 3302
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3302
Gly Ala Ser
1

<210> 3303
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3303
cagcagtatg ataactggcc gtacact 27

<210> 3304
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3304
Gln Gln Tyr Asp Asn Trp Pro Tyr Thr
1 5

<210> 3305
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3305
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60

acctgcgctg tctatggtgg gtccatcagt gtttactact ggagcttgat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcgatcata ctggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatatca gtagacacgt ccgagaacca gttctccctg 240
aagctgacct ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgag aggctctctt 300
ataacagatc gagactggta cttcgatctc tggggccgtg gcaccctggt caccgtctcc 360
tca 363

<210> 3306
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3306
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1 5 10 15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Ile Ser Val Tyr
            20 25 30
Tyr Trp Ser Leu Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35 40 45
Gly Glu Ile Asp His Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50 55 60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Glu Asn Gln Phe Ser Leu
65 70 75 80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85 90 95
Arg Gly Ser Leu Ile Thr Asp Arg Asp Trp Tyr Phe Asp Leu Trp Gly
            100 105 110
Arg Gly Thr Leu Val Thr Val Ser Ser
        115 120

<210> 3307
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3307
ggtgggtcca tcagtgttta ctac 24

<210> 3308
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3308
Gly Gly Ser Ile Ser Val Tyr Tyr
 1   5

<210> 3309
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3309
atcgatcata ctggaagcac c   21

<210> 3310
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3310
Ile Asp His Thr Gly Ser Thr
 1   5

<210> 3311
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3311
gcgagaggct ctcttataac agatcgagac tggtacttcg atctc   45

<210> 3312
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3312
Ala Arg Gly Ser Leu Ile Thr Asp Arg Asp Trp Tyr Phe Asp Leu
 1   5   10   15

<210> 3313
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3313
gacatcgtga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatatta ctgtcaacag tatgataatc tcccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 3314
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3314
Asp Ile Val 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 Ser 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 Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asn Leu Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3315
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3315

caggacatta gcaactat 18

<210> 3316
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3316
Gln Asp Ile Ser Asn Tyr
1 5

<210> 3317
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3317
gatgcatcc 9

<210> 3318
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3318
Asp Ala Ser
1

<210> 3319
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3319
caacagtatg ataatctccc gctcact 27

<210> 3320
<211> 9

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3320
Gln Gln Tyr Asp Asn Leu Pro Leu Thr
 1   5

<210> 3321
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3321
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgctg tctatggtgg gtccctcagt ggttactact ggagctggat ccgccagccc 120
ccagggaagg ggctggaatg gattggggaa atcgatcata ctggaagcac caactacaat 180
ccgtccctca agagtcgagt caccatatcc gtcgacacgt cccagaacca gctctccctg 240
aagttgacct ctgtgaccgc cgcggacacg gctgtgtact tttgtgcgag aggctctctt 300
ataacagatc gagactggta cttcgatttc tggggccgtg gcaccctggt caccgtctcc 360
tca   363

<210> 3322
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3322
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 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Leu Ser Gly Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asp His Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Gln Asn Gln Leu Ser Leu
65   70   75   80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Phe Cys Ala
                85   90   95
Arg Gly Ser Leu Ile Thr Asp Arg Asp Trp Tyr Phe Asp Phe Trp Gly
            100   105   110
Arg Gly Thr Leu Val Thr Val Ser Ser

115 120

<210> 3323
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3323
ggtgggtccc tcagtggtta ctac 24

<210> 3324
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3324
Gly Gly Ser Leu Ser Gly Tyr Tyr
1 5

<210> 3325
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3325
atcgatcata ctggaagcac c 21

<210> 3326
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3326
Ile Asp His Thr Gly Ser Thr
1 5

<210> 3327

<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3327
gcgagaggct ctcttataac agatcgagac tggtacttcg atttc 45

<210> 3328
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3328
Ala Arg Gly Ser Leu Ile Thr Asp Arg Asp Trp Tyr Phe Asp Phe
1 5 10 15

<210> 3329
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3329
gacatcgtga tgacccagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtattagc agccacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcatccacca ggtccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcaacaa tataatgact ggccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 3330
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3330
Asp Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Ser His
20 25 30

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Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35                  40                  45
Tyr Gly Ala Ser Thr Arg Ser Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65                  70                  75                  80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asp Trp Pro Tyr
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 3331
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3331
cagagtatta gcagccac 18

<210> 3332
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3332
Gln Ser Ile Ser Ser His
 1   5

<210> 3333
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3333
ggtgcatcc 9

<210> 3334
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3334
Gly Ala Ser
 1

<210> 3335
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3335
caacaatata atgactggcc gtacact 27

<210> 3336
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3336
Gln Gln Tyr Asn Asp Trp Pro Tyr Thr
 1   5

<210> 3337
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3337
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acctgcgctg tctatggtgg gtccctcagt ggttactact ggaactggat ccgccagccc 120
ccagggaagg ggctggcgtg gattggggaa atcgatcata ctggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aagctgacct ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgag aggctctcgt 300
ataacagatc gagactggta cttcgatctc tggggccgtg gcaccctggt caccgtctcc 360
tca 363

<210> 3338
<211> 121
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 3338
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Leu Ser Gly Tyr
            20   25   30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Ala Trp Ile
        35   40   45
Gly Glu Ile Asp His Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Ser Arg Ile Thr Asp Arg Asp Trp Tyr Phe Asp Leu Trp Gly
            100   105   110
Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 3339
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3339
ggtgggtccc tcagtggtta ctac   24

<210> 3340
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3340
Gly Gly Ser Leu Ser Gly Tyr Tyr
 1   5

<210> 3341
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3341
atcgatcata ctggaagcac c 21

<210> 3342
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3342
Ile Asp His Thr Gly Ser Thr
1 5

<210> 3343
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3343
gcgagaggct ctcgtataac agatcgagac tggtacttcg atctc 45

<210> 3344
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3344
Ala Arg Gly Ser Arg Ile Thr Asp Arg Asp Trp Tyr Phe Asp Leu
1 5 10 15

<210> 3345
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3345
gacatcgtga tgacccagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcaactttg cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct cctctatggt ggatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcagcat tatgataact ggccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 3346
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3346
Asp Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
            20   25   30
Phe Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Leu
        35   40   45
Tyr Gly Gly Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Tyr Asp Asn Trp Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3347
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3347
cagagtgtta gcagcaac 18

<210> 3348
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3348
Gln Ser Val Ser Ser Asn
 1   5

<210> 3349
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3349
ggtggatcc   9

<210> 3350
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3350
Gly Gly Ser
 1

<210> 3351
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3351
cagcattatg ataactggcc gtacact   27

<210> 3352
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3352
Gln His Tyr Asp Asn Trp Pro Tyr Thr
 1   5

<210> 3353
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3353
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgttg tggatagtgg atccctcagt ggttactact ggagctggat ccggcagccc 120
ccagggaagg gactggagtg gattggggaa atcgatcata ctggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatatct gtagacacgt ccaagaacca gttctcactg 240
aggctgacct ctgtgaccgc cgcggacacg gctgtttatt actgtgcgag agggtctcgt 300
ataacagatc gagactggta tttcgatccc tggggccgtg gctccctggt caccgtctcc 360
tca 363

<210> 3354
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3354
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Val Val Asp Ser Gly Ser Leu Ser Gly Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asp His Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Arg Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Ser Arg Ile Thr Asp Arg Asp Trp Tyr Phe Asp Pro Trp Gly
            100   105   110
Arg Gly Ser Leu Val Thr Val Ser Ser
        115   120

<210> 3355
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3355
agtggatccc tcagtggtta ctac 24

<210> 3356
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3356
Ser Gly Ser Leu Ser Gly Tyr Tyr
1 5

<210> 3357
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3357
atcgatcata ctggaagcac c 21

<210> 3358
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3358
Ile Asp His Thr Gly Ser Thr
1 5

<210> 3359
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3359
gcgagagggt ctcgtataac agatcgagac tggtatttcg atccc 45

<210> 3360
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3360
Ala Arg Gly Ser Arg Ile Thr Asp Arg Asp Trp Tyr Phe Asp Pro
 1   5   10   15

<210> 3361
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3361
gacatcgtga tgacccagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca ggaccagtca gagtattacc agccacttcg cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcagcaa tatgataact ggccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 3362
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3362
Asp Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Thr Ser Gln Ser Ile Thr Ser His
            20   25   30
Phe Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asp Asn Trp Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3363
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3363
cagagtatta ccagccac 18

<210> 3364
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3364
Gln Ser Ile Thr Ser His
 1 5

<210> 3365
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3365
ggtgcatcc 9

<210> 3366
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3366
Gly Ala Ser
 1

<210> 3367
<211> 27

<212> DNA
<213> Artificial Sequence

<220>
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<400> 3367
cagcaatatg ataactggcc gtacact 27

<210> 3368
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 3368
Gln Gln Tyr Asp Asn Trp Pro Tyr Thr
 1 5

<210> 3369
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3369
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acctgcgctg tctatggtgg gtccctcagt ggttactact ggagctggat ccgccagccc 120
ccagggaagg ggctggaatg gattggggaa atcgatcata ctggaagtac caactacaat 180
ccgtccctca agagtcgagt caccatatcc gtcgacacgt cccagaacca gctctccctg 240
aagttgacct ctgtgaccgc cgcggacacg gctgtgtact tctgtgcgag aggctctctt 300
ataacagatc gagactggta cttcgatctc tggggccgtg gcaccctggt caccgtctcc 360
tca 363

<210> 3370
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3370
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1 5 10 15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Leu Ser Gly Tyr
 20 25 30

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Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Gly Glu Ile Asp His Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50                  55                  60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Gln Asn Gln Leu Ser Leu
65                  70                  75                  80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95
Arg Gly Ser Leu Ile Thr Asp Arg Asp Trp Tyr Phe Asp Leu Trp Gly
            100                 105                 110
Arg Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 3371
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3371
ggtgggtccc tcagtggtta ctac 24

<210> 3372
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3372
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Gly Gly Ser Leu Ser Gly Tyr Tyr
 1               5
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<210> 3373
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3373
atcgatcata ctggaagtac c 21

<210> 3374
<211> 7
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 3374
Ile Asp His Thr Gly Ser Thr
 1   5

<210> 3375
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3375
gcgagaggct ctcttataac agatcgagac tggtacttcg atctc   45

<210> 3376
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3376
Ala Arg Gly Ser Leu Ile Thr Asp Arg Asp Trp Tyr Phe Asp Leu
 1   5   10   15

<210> 3377
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3377
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ctctcctgca gggccagtca gagtattagc agccacttag cctggtatca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg gagtttatta ctgtcaacaa tataatgact ggccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 3378
<211> 108

<212> PRT
<213> Artificial Sequence

<220>
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<400> 3378
Asp Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Ser His
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Gly Val Tyr Tyr Cys Gln Gln Tyr Asn Asp Trp Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3379
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3379
cagagtatta gcagccac   18

<210> 3380
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3380
Gln Ser Ile Ser Ser His
 1   5

<210> 3381
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3381
ggtgcatcc 9

<210> 3382
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3382
Gly Ala Ser
1

<210> 3383
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3383
caacaatata atgactggcc gtacact 27

<210> 3384
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3384
Gln Gln Tyr Asn Asp Trp Pro Tyr Thr
1 5

<210> 3385
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3385

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acctgcgctg tgtatggtgg atccttaagt ggttactact ggagctggat ccggcagccc 120
ccagggaagg gactggagtg gattggggaa atcgatcata ctggaagcac caactacaac 180
ccgtccctca agagtcgact caccatatca gtggacacgt ccaggaacca attctcactg 240
aagctgagtt ctgtgaccgc cgcggacacg gctgtttatt actgtacgag agggtctcgt 300
ataacagatc gagactggta cttcgatctc tggggccgtg gcaccctggt caccgtctcc 360
tca 363

<210> 3386
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3386
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Leu Ser Gly Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asp His Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Leu Thr Ile Ser Val Asp Thr Ser Arg Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Thr
                85   90   95
Arg Gly Ser Arg Ile Thr Asp Arg Asp Trp Tyr Phe Asp Leu Trp Gly
            100   105   110
Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 3387
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3387
ggtggatcct taagtggtta ctac 24

<210> 3388
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 3388
Gly Gly Ser Leu Ser Gly Tyr Tyr
 1   5

<210> 3389
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3389
atcgatcata ctggaagcac c   21

<210> 3390
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3390
Ile Asp His Thr Gly Ser Thr
 1   5

<210> 3391
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3391
acgagagggt ctcgtataac agatcgagac tggtacttcg atctc   45

<210> 3392
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3392
Thr Arg Gly Ser Arg Ile Thr Asp Arg Asp Trp Tyr Phe Asp Leu

 1   5   10   15

<210> 3393
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3393
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atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attcccaatt cactttcggc 300
cctgggacca aggtggagat caaacga   327

<210> 3394
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3394
Asp Ile Val Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Gln
                85   90   95
Phe Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3395
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3395
cagagtatta gtagctgg 18

<210> 3396
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3396
Gln Ser Ile Ser Ser Trp
1 5

<210> 3397
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3397
aaggcgtct 9

<210> 3398
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3398
Lys Ala Ser
1

<210> 3399
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3399
caacagtata atagttattc ccaattcact 30

<210> 3400

<211> 10
<212> PRT
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<220>
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<400> 3400
Gln Gln Tyr Asn Ser Tyr Ser Gln Phe Thr
 1   5   10

<210> 3401
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3401
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc ctgcggagac cctgtccctc 60
acctgcgctg tctatggtgg gtccctcagt ggctactatt ggagctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcgatcata ctggaagtac caactacaat 180
ccgtccctca agagtcgagt caccatatca gtcgacacgt ccaagaacct actctccctg 240
aggctgactt ctgtgaccga cgcggacacg gctgtgtatt actgtgcgag aggcactctt 300
atcacagatc gagactggta cttcggtctc tggggccgtg gctccctggt caccgtctcc 360
tca   363

<210> 3402
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3402
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ala Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Leu Ser Gly Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asp His Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Leu Leu Ser Leu
65   70   75   80
Arg Leu Thr Ser Val Thr Asp Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Thr Leu Ile Thr Asp Arg Asp Trp Tyr Phe Gly Leu Trp Gly
            100   105   110

Arg Gly Ser Leu Val Thr Val Ser Ser
        115   120

<210> 3403
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3403
ggtgggtccc tcagtggcta ctat 24

<210> 3404
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3404
Gly Gly Ser Leu Ser Gly Tyr Tyr
 1   5

<210> 3405
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3405
atcgatcata ctggaagtac c 21

<210> 3406
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3406
Ile Asp His Thr Gly Ser Thr
 1   5

<210> 3407
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3407
gcgagaggca ctcttatcac agatcgagac tggtacttcg gtctc 45

<210> 3408
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3408
Ala Arg Gly Thr Leu Ile Thr Asp Arg Asp Trp Tyr Phe Gly Leu
1 5 10 15

<210> 3409
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3409
gacatcgtga tgacccagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gagccagtca gagtattagt gaccacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gaatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcagcag tataataact ggccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 3410
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3410
Asp Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Asp His

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            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35                  40                  45
Tyr Gly Glu Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65                  70                  75                  80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro Tyr
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 3411
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3411
cagagtatta gtgaccac 18

<210> 3412
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3412
Gln Ser Ile Ser Asp His
 1   5

<210> 3413
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3413
ggtgaatcc 9

<210> 3414
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3414
Gly Glu Ser
 1

<210> 3415
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3415
cagcagtata ataactggcc gtacact 27

<210> 3416
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3416
Gln Gln Tyr Asn Asn Trp Pro Tyr Thr
 1 5

<210> 3417
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3417
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acctgcgctg tctatggtgg gtccctcaat ggttactact ggaactggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcgatcata ctggaagcac caacttcaat 180
ccgtccctca agagtcgagt caccatatca gtcgacacgt ccaagagcca gctctccctg 240
aagctgagct ctgtgaccgc cgcggacacg gctgtttact actgtgcgaa aggctctctt 300
attacagatc gagactggta cttcgatctc tggggccgtg gcaccctggt caccgtctcc 360
tca 363

<210> 3418
<211> 121

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3418
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Leu Asn Gly Tyr
            20   25   30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asp His Thr Gly Ser Thr Asn Phe Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Ser Gln Leu Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Lys Gly Ser Leu Ile Thr Asp Arg Asp Trp Tyr Phe Asp Leu Trp Gly
            100   105   110
Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 3419
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3419
ggtgggtccc tcaatggtta ctac   24

<210> 3420
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3420
Gly Gly Ser Leu Asn Gly Tyr Tyr
 1   5

<210> 3421
<211> 21
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 3421
atcgatcata ctggaagcac c 21

<210> 3422
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3422
Ile Asp His Thr Gly Ser Thr
1 5

<210> 3423
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3423
gcgaaaggct ctcttattac agatcgagac tggtacttcg atctc 45

<210> 3424
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3424
Ala Lys Gly Ser Leu Ile Thr Asp Arg Asp Trp Tyr Phe Asp Leu
1 5 10 15

<210> 3425
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3425
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ctctcctgca gggccagtca tagtattagc agccacttcg cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcaacac tataataact ggccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 3426
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3426
Asp Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser His Ser Ile Ser Ser His
            20   25   30
Phe Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Tyr Asn Asn Trp Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3427
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3427
catagtatta gcagccac 18

<210> 3428
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3428
His Ser Ile Ser Ser His
 1   5

<210> 3429
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3429
ggtgcatcc   9

<210> 3430
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3430
Gly Ala Ser
 1

<210> 3431
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3431
caacactata ataactggcc gtacact   27

<210> 3432
<211> 9
<212> PRT
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<220>
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<400> 3432
Gln His Tyr Asn Asn Trp Pro Tyr Thr
 1   5

<210> 3433
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3433
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactg 60
tcctgtgcag cgtccggatt caccttcagt acctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaaataa gaaatactat 180
ggagactccg tgaagggccg attcaccata tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagacagtcc 300
ggtatagtgg gagctacccc atttgactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 3434
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3434
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr 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 Asn Lys Lys Tyr 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 Gln Ser Gly Ile Val Gly Ala Thr Pro Phe Asp Tyr Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 3435
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 3435
ggattcacct tcagtaccta tggc 24

<210> 3436
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3436
Gly Phe Thr Phe Ser Thr Tyr Gly
1 5

<210> 3437
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3437
atatggtatg atggaaataa gaaa 24

<210> 3438
<211> 8
<212> PRT
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<220>
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<400> 3438
Ile Trp Tyr Asp Gly Asn Lys Lys
1 5

<210> 3439
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3439
gcgagacagt ccggtatagt gggagctacc ccatttgact ac 42

<210> 3440
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3440
Ala Arg Gln Ser Gly Ile Val Gly Ala Thr Pro Phe Asp Tyr
 1   5   10

<210> 3441
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3441
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atcacttgcc gggcaagtca gagtattagc aggtatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagttcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ccccattcat tttcggccct 300
gggaccaagg tggaaatcaa acga   324

<210> 3442
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3442
Asp Ile Val 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 Ser Ile Ser Arg Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Phe Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Phe
                85   90   95
Ile Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg

100 105

<210> 3443
<211> 18
<212> DNA
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<220>
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<400> 3443
cagagtatta gcaggtat 18

<210> 3444
<211> 6
<212> PRT
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<220>
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<400> 3444
Gln Ser Ile Ser Arg Tyr
1 5

<210> 3445
<211> 9
<212> DNA
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<220>
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<400> 3445
gctgcatcc 9

<210> 3446
<211> 3
<212> PRT
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<220>
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<400> 3446
Ala Ala Ser
1

<210> 3447

<211> 27
<212> DNA
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<220>
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<400> 3447
caacagagtt acagtacccc attcatt 27

<210> 3448
<211> 9
<212> PRT
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<220>
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<400> 3448
Gln Gln Ser Tyr Ser Thr Pro Phe Ile
 1 5

<210> 3449
<211> 350
<212> DNA
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<220>
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ccagggaagg ggctggagtg ggtctcaatt atttatagtg gtggtatcag atactacgca 180
gactccgtga agggccggtt caccatctcc agagacaatt ccaagaacac gctgtatctg 240
caaatgaaca gcctgagagc cgaggacacg gccatgtatt actgtgcgag cgggttagca 300
actgcggttt ggacgtctgg ggccaaggga ccacggtcac cgtctcctca 350

<210> 3450
<211> 116
<212> PRT
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<220>
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<400> 3450
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 Thr Ser Tyr
 20 25 30

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

<210> 3451
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3451
ggattcacct ttaccagcta ctgc 24

<210> 3452
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3452
Gly Phe Thr Phe Thr Ser Tyr Cys
 1   5

<210> 3453
<211> 21
<212> DNA
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<220>
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<400> 3453
atttatagtg gtggtatcag a 21

<210> 3454
<211> 7
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 3454
Ile Tyr Ser Gly Gly Ile Arg
 1   5

<210> 3455
<211> 27
<212> DNA
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<220>
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<400> 3455
gcgagcgggt tagcaactgc ggtttgg   27

<210> 3456
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<212> PRT
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<220>
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<400> 3456
Ala Ser Gly Leu Ala Thr Ala Val Trp
 1   5

<210> 3457
<211> 324
<212> DNA
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<220>
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<400> 3457
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atcacttgcc gggcaagtca gggcatcaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctacgctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ccccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 3458
<211> 108

<212> PRT
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<220>
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<400> 3458
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 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 Thr Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3459
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3459
cagggcatca gaaatgat   18

<210> 3460
<211> 6
<212> PRT
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<220>
<223> synthetic

<400> 3460
Gln Gly Ile Arg Asn Asp
 1   5

<210> 3461
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3461
gctgcatcc 9

<210> 3462
<211> 3
<212> PRT
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<220>
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<400> 3462
Ala Ala Ser
1

<210> 3463
<211> 27
<212> DNA
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<220>
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<400> 3463
caacagagtt acagtacccc gctcact 27

<210> 3464
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3464
Gln Gln Ser Tyr Ser Thr Pro Leu Thr
1 5

<210> 3465
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3465

gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
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ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaggtaa taaatactat 180
acagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cactctttat 240
ctgcaaatga acagcctgag agccgaggac acggctgttt attactgtgc gagacaatcc 300
ggtatagtgg gagctacccc atttgactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 3466
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3466
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
            20 25 30
Asn 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 Gly Asn Lys Tyr Tyr Thr 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 Gln Ser Gly Ile Val Gly Ala Thr Pro Phe Asp Tyr Trp Gly
            100 105 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115 120

<210> 3467
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3467
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<210> 3468
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<223> synthetic

<400> 3468
Gly Phe Thr Phe Ser Thr Tyr Asn
 1   5

<210> 3469
<211> 24
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<220>
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<400> 3469
atatggtatg atggaggtaa taaa   24

<210> 3470
<211> 8
<212> PRT
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<220>
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<400> 3470
Ile Trp Tyr Asp Gly Gly Asn Lys
 1   5

<210> 3471
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3471
gcgagacaat ccggtatagt gggagctacc ccatttgact ac   42

<210> 3472
<211> 14
<212> PRT
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<220>
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<400> 3472
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 1               5                  10


<210> 3473
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3473
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atcacttgcc gggcaagtca gagcattagc aggtatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagttcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcggcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag acttacagta ccccattcat tttcggccct 300
gggaccaagg tggagatcaa acga                                        324

<210> 3474
<211> 108
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<220>
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<400> 3474
Asp Ile Leu 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 Ser Ile Ser Arg Tyr
            20                  25                  30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Phe Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Gly Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Thr Tyr Ser Thr Pro Phe
                85                  90                  95
Ile Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100                 105


<210> 3475
<211> 18
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<220>
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<400> 3475
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<210> 3476
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3476
Gln Ser Ile Ser Arg Tyr
1 5

<210> 3477
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3477
gctgcatcc 9

<210> 3478
<211> 3
<212> PRT
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<220>
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<400> 3478
Ala Ala Ser
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<210> 3479
<211> 27
<212> DNA
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<220>
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<400> 3479
caacagactt acagtacccc attcatt 27

<210> 3480

<211> 9
<212> PRT
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<400> 3480
Gln Gln Thr Tyr Ser Thr Pro Phe Ile
 1   5

<210> 3481
<211> 363
<212> DNA
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<220>
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<400> 3481
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tcctgtgcag cgtctggatt caccttcagt acctataaca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaggtaa taaatactat 180
acagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cactctttat 240
ctgcaaatga acagcctgag agccgaggac acggctgttt attactgtgc gagacaatcc 300
ggtatagtgg gagctacccc atttgactac tggggccagg gaaccctggt caccgtctcc 360
tca   363

<210> 3482
<211> 121
<212> PRT
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<220>
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<400> 3482
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
            20   25   30
Asn 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 Gly Asn Lys Tyr Tyr Thr 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 Gln Ser Gly Ile Val Gly Ala Thr Pro Phe Asp Tyr Trp Gly
            100   105   110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 3483
<211> 24
<212> DNA
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<220>
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<400> 3483
ggattcacct tcagtaccta taac 24

<210> 3484
<211> 8
<212> PRT
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<220>
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<400> 3484
Gly Phe Thr Phe Ser Thr Tyr Asn
1 5

<210> 3485
<211> 24
<212> DNA
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<220>
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<400> 3485
atatggtatg atggaggtaa taaa 24

<210> 3486
<211> 8
<212> PRT
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<220>
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<400> 3486
Ile Trp Tyr Asp Gly Gly Asn Lys
1 5

<210> 3487
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3487
gcgagacaat ccggtatagt gggagctacc ccatttgact ac 42

<210> 3488
<211> 14
<212> PRT
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<220>
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<400> 3488
Ala Arg Gln Ser Gly Ile Val Gly Ala Thr Pro Phe Asp Tyr
1 5 10

<210> 3489
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3489
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atcacttgcc gggcaagtca gagcattagc aggtatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagttcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcggcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag acttacagta ccccattcat tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 3490
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3490
Asp Ile Leu 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 Ser Ile Ser Arg Tyr

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            20                  25                  30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Phe Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Gly Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Thr Tyr Ser Thr Pro Phe
                85                  90                  95
Ile Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 3491
<211> 18
<212> DNA
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<220>
<223> synthetic

<400> 3491
cagagcatta gcaggtat 18

<210> 3492
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3492
Gln Ser Ile Ser Arg Tyr
1 5

<210> 3493
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3493
gctgcatcc 9

<210> 3494
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3494
Ala Ala Ser
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<210> 3495
<211> 27
<212> DNA
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<220>
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<400> 3495
caacagactt acagtacccc attcatt 27

<210> 3496
<211> 9
<212> PRT
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<220>
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<400> 3496
Gln Gln Thr Tyr Ser Thr Pro Phe Ile
 1   5

<210> 3497
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

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acctgcgctg tctatggtgg gtccctcagt ggttactact ggagctggat ccgccagtcc 120
ccaggaaagg gactggcgtg gattgcggaa atcgatcata ctggaagcac caactacaat 180
ccgtccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aggctgagtt cagtgaccgc cgcggacacg gctgtgtatt actgtgcgag aggctctcgt 300
ataacagatc gagactggta cttcggtctc tggggccgtg gctccctggt caccgtctcc 360
tca 363

<210> 3498
<211> 121

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3498
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Leu Ser Gly Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Ala Trp Ile
        35   40   45
Ala Glu Ile Asp His Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Arg Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Ser Arg Ile Thr Asp Arg Asp Trp Tyr Phe Gly Leu Trp Gly
            100   105   110
Arg Gly Ser Leu Val Thr Val Ser Ser
        115   120

<210> 3499
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3499
ggtgggtccc tcagtggtta ctac   24

<210> 3500
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3500
Gly Gly Ser Leu Ser Gly Tyr Tyr
 1   5

<210> 3501
<211> 21
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 3501
atcgatcata ctggaagcac c 21

<210> 3502
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3502
Ile Asp His Thr Gly Ser Thr
1 5

<210> 3503
<211> 45
<212> DNA
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<220>
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<400> 3503
gcgagaggct ctcgtataac agatcgagac tggtacttcg gtctc 45

<210> 3504
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3504
Ala Arg Gly Ser Arg Ile Thr Asp Arg Asp Trp Tyr Phe Gly Leu
1 5 10 15

<210> 3505
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3505
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ctctcctgca gggccagtca gactgttagc agccacttag cctggtacca gcagaaacct 120
ggccagtctc ccaggctcct cctctattct ggatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca tcatcagtgg cctgcagtct 240
gaagattttg cagtttatta ctgtcagcaa tacaatgact ggccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 3506
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3506
Asp Ile Val Met Thr Gln Ser Ala Asp Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Thr Val Ser Ser His
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Arg Leu Leu Leu
        35   40   45
Tyr Ser Gly Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Ile Ile Ser Gly Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asp Trp Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3507
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3507
cagactgtta gcagccac 18

<210> 3508
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3508
Gln Thr Val Ser Ser His
 1   5

<210> 3509
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3509
tctggatcc   9

<210> 3510
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3510
Ser Gly Ser
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<210> 3511
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3511
cagcaataca atgactggcc gtacact   27

<210> 3512
<211> 9
<212> PRT
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<220>
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<400> 3512
Gln Gln Tyr Asn Asp Trp Pro Tyr Thr
 1   5

<210> 3513
<211> 363
<212> DNA
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<220>
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<400> 3513
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccggcaggct 120
ccaggcaagg ggctggagtg ggtggcagtt ataaggtatg atggaagtaa aaaagactat 180
gtagacttcg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagacaatcc 300
ggaatagtgg gagccacccc atttgactac tggggccagg gaaccatggt caccgtctcc 360
tca 363

<210> 3514
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3514
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Val Ile Arg Tyr Asp Gly Ser Lys Lys Asp Tyr Val Asp Phe 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 Gln Ser Gly Ile Val Gly Ala Thr Pro Phe Asp Tyr Trp Gly
            100   105   110
Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 3515
<211> 24
<212> DNA
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<220>

<223> synthetic

<400> 3515
ggattcacct tcagtagcta tggc 24

<210> 3516
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3516
Gly Phe Thr Phe Ser Ser Tyr Gly
1 5

<210> 3517
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3517
ataaggtatg atggaagtaa aaaa 24

<210> 3518
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3518
Ile Arg Tyr Asp Gly Ser Lys Lys
1 5

<210> 3519
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3519
gcgagacaat ccggaatagt gggagccacc ccatttgact ac 42

<210> 3520
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3520
Ala Arg Gln Ser Gly Ile Val Gly Ala Thr Pro Phe Asp Tyr
 1   5   10

<210> 3521
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3521
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atcacttgcc gggcaagtca gagcattagc aggtatttaa attggtatca gcagaaacca 120
gggaaagccc ctaacctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca tcatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta tcccattcat tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 3522
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3522
Asp Ile Leu 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 Ser Ile Ser Arg Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Ile Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ile Pro Phe
                85   90   95
Ile Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg

100 105

<210> 3523
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3523
cagagcatta gcaggtat 18

<210> 3524
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3524
Gln Ser Ile Ser Arg Tyr
1 5

<210> 3525
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3525
gctgcatcc 9

<210> 3526
<211> 3
<212> PRT
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<220>
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<400> 3526
Ala Ala Ser
1

<210> 3527

<211> 27
<212> DNA
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<220>
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<400> 3527
caacagagtt acagtatccc attcatt 27

<210> 3528
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3528
Gln Gln Ser Tyr Ser Ile Pro Phe Ile
 1 5

<210> 3529
<211> 363
<212> DNA
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<220>
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<400> 3529
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tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccggcaggct 120
ccaggcaagg ggctggagtg ggtggcagtt ataaggtatg atggaagtaa aaaagactat 180
gtagacttcg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagacaatcc 300
ggaatagtgg gagccacccc atttgactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 3530
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3530
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr

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            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 Arg Tyr Asp Gly Ser Lys Lys Asp Tyr Val Asp Phe 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 Gln Ser Gly Ile Val Gly Ala Thr Pro Phe Asp Tyr Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 3531
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3531
ggattcacct tcagtagcta tggc 24

<210> 3532
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3532
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Gly Phe Thr Phe Ser Ser Tyr Gly
 1               5
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<210> 3533
<211> 24
<212> DNA
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<220>
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<400> 3533
ataaggtatg atggaagtaa aaaa 24

<210> 3534
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3534
Ile Arg Tyr Asp Gly Ser Lys Lys
 1   5

<210> 3535
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3535
gcgagacaat ccggaatagt gggagccacc ccatttgact ac   42

<210> 3536
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3536
Ala Arg Gln Ser Gly Ile Val Gly Ala Thr Pro Phe Asp Tyr
 1   5   10

<210> 3537
<211> 324
<212> DNA
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<400> 3537
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gggaaagccc ctaacctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca tcatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta tcccattcat tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 3538

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

<220>
<223> synthetic

<400> 3538
Asp Ile Leu 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 Ser Ile Ser Arg Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Ile Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ile Pro Phe
                85   90   95
Ile Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3539
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3539
cagagcatta gcaggtat   18

<210> 3540
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3540
Gln Ser Ile Ser Arg Tyr
 1   5

<210> 3541
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3541
gctgcatcc 9

<210> 3542
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3542
Ala Ala Ser
1

<210> 3543
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3543
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<210> 3544
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<400> 3544
Gln Gln Ser Tyr Ser Ile Pro Phe Ile
1 5

<210> 3545
<211> 381
<212> DNA
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<220>
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<400> 3545
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tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccgtcaagtt 120
ccagggaagg gtctggagtg ggtctctctt attagttggg atggtggtag aacatactat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acagcaaaaa gtccctgtat 240
ctgcaaatga gcagtccgac aactgaggac accgccttgt attactgtgc aaaagagata 300
tcccttcta cagatcctta ttactactac tatttcggta tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a 381

<210> 3546
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3546
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Ile Gln Arg Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Leu Ile Ser Trp Asp Gly Gly Arg Thr Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Lys Ser Leu Tyr
65   70   75   80
Leu Gln Met Ser Ser Pro Thr Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Tyr Tyr Tyr Phe
            100   105   110
Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 3547
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3547
ggattcacct ttgatgatta tgcc 24

<210> 3548
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3548
Gly Phe Thr Phe Asp Asp Tyr Ala
 1   5

<210> 3549
<211> 24
<212> DNA
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<220>
<223> synthetic

<400> 3549
attagttggg atggtggtag aaca   24

<210> 3550
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3550
Ile Ser Trp Asp Gly Gly Arg Thr
 1   5

<210> 3551
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3551
gcaaaagaga tatccccttc tacagatcct tattactact actatttcgg tatggacgtc 60

<210> 3552
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3552
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Tyr Tyr Tyr Phe
 1   5   10   15
Gly Met Asp Val
            20

<210> 3553
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3553
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca ggaccagtca gattattaat gacaactact tcgcctggta tcagcagaaa 120
cctggccagg ctcccaggct cctcatctat gctacatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcggtgta ttactgtcag cattatggta cctcacctcc ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 3554
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3554
Asp Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Thr Ser Gln Ile Ile Asn Asp Asn
            20   25   30
Tyr Phe Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Ala Thr Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Tyr Gly Thr Ser Pro
                85   90   95
Pro Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3555
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3555
cagattatta atgacaacta c 21

<210> 3556
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3556
Gln Ile Ile Asn Asp Asn Tyr
1 5

<210> 3557
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3557
gctacatcc 9

<210> 3558
<211> 3
<212> PRT
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<220>
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<400> 3558
Ala Thr Ser
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<210> 3559
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3559
cagcattatg gtacctcacc tcct 24

<210> 3560
<211> 8
<212> PRT
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<220>
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<400> 3560
Gln His Tyr Gly Thr Ser Pro Pro
 1 5

<210> 3561
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3561
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt gattactact ggagctggat ccggcagccc 120
ccagggaagg gactggaatg gattggatat atctattaca ctgggagcac caaccacaac 180
ccctccctca agagtcggtt caccatatca ttggacacgt ccaggaacca gttctccctg 240
aagctgagct ctgtgaccgc cgcagacacg gccgtgtatt tctgtgcgcg acaaaacggt 300
gactcttttg actactgggg ccagggaacc ctggtcaccg tctcctca 348

<210> 3562
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3562
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 1 5 10 15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Asp 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 Thr Gly Ser Thr Asn His Asn Pro Ser Leu Lys
 50 55 60
Ser Arg Phe Thr Ile Ser Leu Asp Thr Ser Arg Asn Gln Phe Ser Leu
65 70 75 80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Phe Cys Ala

85 90 95
Arg Gln Asn Gly Asp Ser Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
100 105 110
Thr Val Ser Ser
115

<210> 3563
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3563
ggtggctcca tcagtgatta ctac 24

<210> 3564
<211> 8
<212> PRT
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<220>
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<400> 3564
Gly Gly Ser Ile Ser Asp Tyr Tyr
1 5

<210> 3565
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3565
atctattaca ctgggagcac c 21

<210> 3566
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3566
Ile Tyr Tyr Thr Gly Ser Thr

 1   5

<210> 3567
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3567
gcgcgacaaa acggtgactc ttttgactac   30

<210> 3568
<211> 10
<212> PRT
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<220>
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<400> 3568
Ala Arg Gln Asn Gly Asp Ser Phe Asp Tyr
 1   5   10

<210> 3569
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3569
gacatcctga tgacccagtc tccgtcctcc ctgtctgcat ctgtgggaga cagagtcacc 60
atcacttgcc gggcaagcca gagcattgcc aactatttaa attggtatcg ccagcaacca 120
ggtagagccc ctaacctcct gatctatgct gcatccagat tgcaacgtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacatat ttcactctca ccatcagcaa tctgcaacct 240
gaagattttg caacttacta ctgtcaacag tgttacacta ccccatactc ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 3570
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3570

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

<210> 3571
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3571
cagagcattg ccaactat 18

<210> 3572
<211> 6
<212> PRT
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<220>
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<400> 3572
Gln Ser Ile Ala Asn Tyr
 1   5

<210> 3573
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3573
gctgcatcc 9

<210> 3574

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

<220>
<223> synthetic

<400> 3574
Ala Ala Ser
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<210> 3575
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3575
caacagtgtt acactacccc atactct 27

<210> 3576
<211> 9
<212> PRT
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<220>
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<400> 3576
Gln Gln Cys Tyr Thr Thr Pro Tyr Ser
 1   5

<210> 3577
<211> 381
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3577
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tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccgtcaagct 120
ccagggaagg gtctggagtg ggtctctctc attaattggg atggacataa tacatattat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acagcaaaaa ctccctgtgg 240
ctgcaaatga acagtctgag aactgaagac agcgccttgt attactgtgc aaaagagatt 300
tcccccttcta cagatcctta ttacttctac tacttcggta tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a 381

<210> 3578
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3578
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Leu Ile Asn Trp Asp Gly His Asn Thr Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Ser Leu Trp
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Thr Glu Asp Ser Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Phe Tyr Tyr Phe
            100   105   110
Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 3579
<211> 24
<212> DNA
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<220>
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<400> 3579
ggattcacct ttgatgatta tgcc   24

<210> 3580
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3580
Gly Phe Thr Phe Asp Asp Tyr Ala
 1   5

<210> 3581
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3581
attaattggg atggacataa taca 24

<210> 3582
<211> 8
<212> PRT
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<220>
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<400> 3582
Ile Asn Trp Asp Gly His Asn Thr
 1 5

<210> 3583
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3583
gcaaaagaga tttccccttc tacagatcct tattacttct actacttcgg tatggacgtc 60

<210> 3584
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3584
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Phe Tyr Tyr Phe
 1 5 10 15
Gly Met Asp Val
 20

<210> 3585

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

<220>
<223> synthetic

<400> 3585
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgtaagc agcagctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat gctacatcca gtagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcaatgta ttactgtcag cactatgttg gttcacctcc ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 3586
<211> 108
<212> PRT
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<220>
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<400> 3586
Asp Ile Val Met 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
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Ala Thr Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Met Tyr Tyr Cys Gln His Tyr Val Gly Ser Pro
                85   90   95
Pro Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3587
<211> 21
<212> DNA
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<220>
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<400> 3587
cagagtgtaa gcagcagcta c 21

<210> 3588

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

<220>
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<400> 3588
Gln Ser Val Ser Ser Ser Tyr
 1   5

<210> 3589
<211> 9
<212> DNA
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<220>
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<400> 3589
gctacatcc   9

<210> 3590
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3590
Ala Thr Ser
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<210> 3591
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3591
cagcactatg ttggttcacc tcct   24

<210> 3592
<211> 8
<212> PRT
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<220>
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<400> 3592
Gln His Tyr Val Gly Ser Pro Pro
 1   5

<210> 3593
<211> 354
<212> DNA
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<220>
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<400> 3593
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acctgcactg tctctggtgg ctccatcagt ggttattatt ggagttggat ccggcagccc 120
ccagggaagg gactggagtg gattggttac atctattaca ctgggagcac caattacaat 180
ccctccctcg agagtcgagt caccatatca gtggacacgt ccaagaatca gttctccctg 240
aagttgaagt ctgtgactgc cgcagacacg gccgtgtatt actgtgcgag agatgacgcg 300
gactacaacg gtatggacgt ctggggccaa gggaccatgg tcaccgtctc ctca   354

<210> 3594
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3594
Glu Val Gln Leu Val 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 Gly 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 Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Glu
    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 Lys Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Asp Ala Asp Tyr Asn Gly Met Asp Val Trp Gly Gln Gly Thr
            100   105   110
Met Val Thr Val Ser Ser
        115

<210> 3595

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

<220>
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<400> 3595
ggtggctcca tcagtggtta ttat 24

<210> 3596
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 3596
Gly Gly Ser Ile Ser Gly Tyr Tyr
1 5

<210> 3597
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3597
atctattaca ctgggagcac c 21

<210> 3598
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3598
Ile Tyr Tyr Thr Gly Ser Thr
1 5

<210> 3599
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3599
gcgagagatg acgcggacta caacggtatg gacgtc 36

<210> 3600
<211> 12
<212> PRT
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<220>
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<400> 3600
Ala Arg Asp Asp Ala Asp Tyr Asn Gly Met Asp Val
 1 5 10

<210> 3601
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3601
gacatcgtga tgacccagtc tccactctcc ctgcccgtca cccttggaca gccggcctcc 60
atctcctgca ggtctagtca aagtctcata tacaatgatg gaaaaattta tttgaattgg 120
tttcagcaga ggccaggcca atctccaagg cgcctgattt ataaggtttc taaccgggac 180
tctggggtcc cagacagatt caggggcagt gggtcaggca ctgaattcac actgaaaatc 240
agcagggtgg aggctgagga tgttggggtt tattattgca tgcaaagtac acactggccg 300
ctcactttcg gcggagggac caaggtggag atcaaacga 339

<210> 3602
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3602
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
 1 5 10 15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Ile Tyr Asn
            20 25 30
Asp Gly Lys Ile Tyr Leu Asn Trp Phe Gln Gln Arg Pro Gly Gln Ser
        35 40 45
Pro Arg Arg Leu Ile Tyr Lys Val Ser Asn Arg Asp Ser Gly Val Pro
    50 55 60

Asp Arg Phe Arg Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Lys Ile
65 70 75 80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ser
85 90 95
Thr His Trp Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110
Arg

<210> 3603
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3603
caaagtctca tatacaatga tggaaaaatt tat 33

<210> 3604
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3604
Gln Ser Leu Ile Tyr Asn Asp Gly Lys Ile Tyr
1 5 10

<210> 3605
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3605
aaggtttct 9

<210> 3606
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3606
Lys Val Ser
 1

<210> 3607
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3607
atgcaaagta cacactggcc gctcact 27

<210> 3608
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3608
Met Gln Ser Thr His Trp Pro Leu Thr
 1 5

<210> 3609
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3609
gaggtgcagc tggtggagtc tgggggagac ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttggt gattatgcca tgcactgggt ccggcaaggt 120
ccagggaagg gcctggagtg ggtctcaagt attagttgga gtggtgagaa cgtcgcctat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag acctgaggac acggccctct actattgtgc aaaagatata 300
tgggactact tcggtatgga cgtctggggc caagggacca cggtcaccgt ctcctca 357

<210> 3610
<211> 119
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 3610
Glu Val Gln Leu Val Glu Ser Gly Gly Asp Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Gly Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Gly Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ser Ile Ser Trp Ser Gly Glu Asn Val Ala 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 Pro Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Ile Trp Asp Tyr Phe Gly Met Asp Val Trp Gly Gln Gly
            100   105   110
Thr Thr Val Thr Val Ser Ser
        115

<210> 3611
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3611
ggattcacct ttggtgatta tgcc   24

<210> 3612
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3612
Gly Phe Thr Phe Gly Asp Tyr Ala
 1   5

<210> 3613
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3613
attagttgga gtggtgagaa cgtc 24

<210> 3614
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3614
Ile Ser Trp Ser Gly Glu Asn Val
1 5

<210> 3615
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3615
gcaaaagata tgggacta cttcggtatg gacgtc 36

<210> 3616
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3616
Ala Lys Asp Ile Trp Asp Tyr Phe Gly Met Asp Val
1 5 10

<210> 3617
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3617
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gaaaattaac agcaattact tagtctggta ccagcagaaa 120

cctggccagg cccccaggct cctcatctat ggtgcatcca acagggccac tggcatccca 180
gacaggttca gtggcggtgg gtctgggaca gacttcattc tcactatcag cagactggag 240
cctgaagatt ttgtagtgta ttactgtcac cactatggta cctcgtacac ttttgcccag 300
gggaccaagg tggagatcaa acga 324

<210> 3618
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3618
Asp Ile Val Met 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 Lys Ile Asn Ser Asn
            20   25   30
Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Asn Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Gly Gly Ser Gly Thr Asp Phe Ile Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Val Val Tyr Tyr Cys His His Tyr Gly Thr Ser Tyr
                85   90   95
Thr Phe Ala Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3619
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3619
cagaaaatta acagcaatta c 21

<210> 3620
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3620
Gln Lys Ile Asn Ser Asn Tyr
 1   5

<210> 3621
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3621
ggtgcatcc 9

<210> 3622
<211> 3
<212> PRT
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<220>
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<400> 3622
Gly Ala Ser
1

<210> 3623
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3623
caccactatg gtacctcgta cact 24

<210> 3624
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3624
His His Tyr Gly Thr Ser Tyr Thr
1 5

<210> 3625
<211> 348

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3625
caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt gattactact ggagctggat ccggcagccc 120
ccaggaaagg gactggagtg gattggatat atctattaca ctgggagcac caactacaac 180
ccctccctca agagtcggtt caccatatca ttggacacgt ccaggaacca gttctccctg 240
aagctgagct ctgtgaccgc cgcagacacg gccgtgtatt tctgtgcgag acaaaacggt 300
gactcttttg actactgggg ccagggaacc ctggtcaccg tctcctca 348

<210> 3626
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3626
Gln Val Gln Leu Val 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 Asp 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 Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Phe Thr Ile Ser Leu Asp Thr Ser Arg Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Phe Cys Ala
                85   90   95
Arg Gln Asn Gly Asp Ser Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 3627
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3627
ggtggctcca tcagtgatta ctac 24

<210> 3628
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3628
Gly Gly Ser Ile Ser Asp Tyr Tyr
 1   5

<210> 3629
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3629
atctattaca ctgggagcac c   21

<210> 3630
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3630
Ile Tyr Tyr Thr Gly Ser Thr
 1   5

<210> 3631
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3631
gcgagacaaa acggtgactc ttttgactac   30

<210> 3632
<211> 10
<212> PRT
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<220>
<223> synthetic

<400> 3632
Ala Arg Gln Asn Gly Asp Ser Phe Asp Tyr
 1   5   10

<210> 3633
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3633
gacatccaga tgacccagtc tccgtcctcc ctgtctgcat ctgtgggaga cagagtcacc 60
atcacttgcc gggcaagcca gagtattagt agctatttaa attggtatcg gcagcaacca 120
gggagagccc ctaacctcct gatctatgct gcatccagat tgcaacgtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacatat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag tgttacagta ccccgtactc ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 3634
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3634
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 Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Arg Gln Gln Pro Gly Arg Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Arg Leu Gln Arg Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Tyr Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Cys Tyr Ser Thr Pro Tyr
                85   90   95
Ser Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3635
<211> 18

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3635
cagagtatta gtagctat 18

<210> 3636
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3636
Gln Ser Ile Ser Ser Tyr
1 5

<210> 3637
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3637
gctgcatcc 9

<210> 3638
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3638
Ala Ala Ser
1

<210> 3639
<211> 27
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 3639
caacagtgtt acagtacccc gtactct 27

<210> 3640
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3640
Gln Gln Cys Tyr Ser Thr Pro Tyr Ser
 1 5

<210> 3641
<211> 381
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3641
gaggtgcagc tggtggagtc tgggggaggc gttatacagc gggggggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccgtcaagtt 120
ccagggaagg gtctggagtg ggtctctctt attagttggg atggtggtag cacatactat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acagcaaaaa gtccctgtat 240
ctgcaaatga gcagtccgac aactgaggac accgccttgt attactgtgc aaaagagata 300
tccccttcta cagatcctta ttactactac tatttcggta tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a 381

<210> 3642
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3642
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Ile Gln Arg Gly Gly
 1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
 20 25 30
Ala Met His Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
Ser Leu Ile Ser Trp Asp Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Lys Ser Leu Tyr
65 70 75 80
Leu Gln Met Ser Ser Pro Thr Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Tyr Tyr Tyr Phe
100 105 110
Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 3643
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3643
ggattcacct ttgatgatta tgcc 24

<210> 3644
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3644
Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 3645
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3645
attagttggg atggtggtag caca 24

<210> 3646
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3646
Ile Ser Trp Asp Gly Gly Ser Thr
 1   5

<210> 3647
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3647
gcaaaagaga tatccccttc tacagatcct tattactact actatttcgg tatggacgtc 60

<210> 3648
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3648
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Tyr Tyr Tyr Phe
 1   5   10   15
Gly Met Asp Val
            20

<210> 3649
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3649
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca ggaccagtca gattattaat ggcaactact tcgcctggta tcagcagaaa 120
cctggccagg ctcccaggct cctcatctat gctacatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cattatggta cctcacctcc ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 3650
<211> 108
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 3650
Asp Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Thr Ser Gln Ile Ile Asn Gly Asn
            20   25   30
Tyr Phe Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Ala Thr Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Tyr Gly Thr Ser Pro
                85   90   95
Pro Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3651
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3651
cagattatta atggcaacta c   21

<210> 3652
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3652
Gln Ile Ile Asn Gly Asn Tyr
 1   5

<210> 3653
<211> 9
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 3653
gctacatcc 9

<210> 3654
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3654
Ala Thr Ser
1

<210> 3655
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3655
cagcattatg gtacctcacc tcct 24

<210> 3656
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3656
Gln His Tyr Gly Thr Ser Pro Pro
1 5

<210> 3657
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3657
gaggtgcagc tggtggagtc tggaacagag gtgaaaaagc ccggggagtc tctgaagatc 60

tcctgtaagg gttctggata cacctttacc aggaactgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatgggcatc atctatcctc gtgactcaga taccagatac 180
agtccgtcct tccaaggcca ggtcaccatg ttagtcgaca agtcaagtag taccgcctac 240
ctgcagtgga gcagcctgaa ggcctcggac accgccgtgt attactgtgc gagactcggg 300
gacctatata actactacta tggtatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 3658
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3658
Glu Val Gln Leu Val Glu Ser Gly Thr Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Arg Asn
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Tyr Pro Arg Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Met Leu Val Asp Lys Ser Ser Ser Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Leu Gly Asp Leu Tyr Asn Tyr Tyr Tyr Gly Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 3659
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3659
ggatacacct ttaccaggaa ctgg 24

<210> 3660
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3660
Gly Tyr Thr Phe Thr Arg Asn Trp
 1   5

<210> 3661
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3661
atctatcctc gtgactcaga tacc   24

<210> 3662
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3662
Ile Tyr Pro Arg Asp Ser Asp Thr
 1   5

<210> 3663
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3663
gcgagactcg gggacctata taactactac tatggtatgg acgtc   45

<210> 3664
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3664
Ala Arg Leu Gly Asp Leu Tyr Asn Tyr Tyr Tyr Gly Met Asp Val
 1   5   10   15

<210> 3665
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3665
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gaccattaac agctatttaa attggtatca gcagaaatca 120
gggaaagccc ctaacctcct gctctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caactttcta ctgtcaacag agttacagtg ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 3666
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3666
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 Thr Ile Asn Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Ser Gly Lys Ala Pro Asn Leu Leu Leu
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Phe Tyr Cys Gln Gln Ser Tyr Ser Ala Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3667
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3667

cagaccatta acagctat 18

<210> 3668
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3668
Gln Thr Ile Asn Ser Tyr
1 5

<210> 3669
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3669
gctgcatcc 9

<210> 3670
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3670
Ala Ala Ser
1

<210> 3671
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3671
caacagagtt acagtgcccc gtacact 27

<210> 3672
<211> 9

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3672
Gln Gln Ser Tyr Ser Ala Pro Tyr Thr
 1   5

<210> 3673
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3673
gaggtgcagc tggtggagtc tgggggaggc gtggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccgtcaagct 120
ccagggaagg gtctggagtg ggtctctctt attactgggg atggtggtag cacatactat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acagcaaaaa ctccctgtat 240
ctgcaaatga acagtctgag aactgaggac accgccttgt attactgtgc aaaagataga 300
gctggaacta actactacta cggtatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca   366

<210> 3674
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3674
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Leu Ile Thr Gly Asp Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Arg Ala Gly Thr Asn Tyr Tyr Tyr Gly Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser

115 120

<210> 3675
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3675
ggattcacct ttgatgatta tgcc 24

<210> 3676
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3676
Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 3677
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3677
attactgggg atggtggtag caca 24

<210> 3678
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3678
Ile Thr Gly Asp Gly Gly Ser Thr
1 5

<210> 3679

<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3679
gcaaaagata gagctggaac taactactac tacggtatgg acgtc 45

<210> 3680
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3680
Ala Lys Asp Arg Ala Gly Thr Asn Tyr Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 3681
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3681
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ctctcctgta gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cagtatggta gctcatcgat caccttcggc 300
caagggacca aactggagat caaacga 327

<210> 3682
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3682
Asp Ile Val Met 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

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

<210> 3683
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3683
cagagtgtta gcagcagcta c 21

<210> 3684
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3684
Gln Ser Val Ser Ser Ser Tyr
1 5

<210> 3685
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3685
ggtgcatcc 9

<210> 3686
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3686
Gly Ala Ser
 1

<210> 3687
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3687
cagcagtatg gtagctcatc gatcacc 27

<210> 3688
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3688
Gln Gln Tyr Gly Ser Ser Ser Ile Thr
 1   5

<210> 3689
<211> 381
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3689
gaggtgcagc tggtggagtc tgggggaggc gttatacagc gggggggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgaa gattatgcca tgcactgggt ccgtcaagtt 120
ccagggaagg gtctggagtg ggtctctttt attaattggg atggtggcag cacatactat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acagcaaaaa gtccctgtat 240
ctgcaaatga gcagtccgac aactgaggac accgccgtgt attactgtgc aaaagagata 300
tccccttcta cagatcctta ttactactac tatttcggta tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a 381

<210> 3690
<211> 127
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 3690
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Ile Gln Arg Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Glu Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Phe Ile Asn Trp Asp Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Lys Ser Leu Tyr
65   70   75   80
Leu Gln Met Ser Ser Pro Thr Thr Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Tyr Tyr Tyr Phe
            100   105   110
Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 3691
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<212> DNA
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<220>
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<210> 3692
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<212> PRT
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<400> 3692
Gly Phe Thr Phe Glu Asp Tyr Ala
 1   5

<210> 3693
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<212> DNA
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<220>
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<400> 3693
attaattggg atggtggcag caca 24

<210> 3694
<211> 8
<212> PRT
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<400> 3694
Ile Asn Trp Asp Gly Gly Ser Thr
 1 5

<210> 3695
<211> 60
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<400> 3695
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<210> 3696
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3696
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Tyr Tyr Tyr Phe
 1 5 10 15
Gly Met Asp Val
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<210> 3697
<211> 324
<212> DNA
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<400> 3697
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ctctcctgca ggaccagtca gattattaat gacaactact tcgcctggta tcagcagaaa 120
cctggccagc ctcccaggct cctcatctat gctacatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctggtgatt ttgcagtgta ttactgtcag cattatggta cctcacctcc ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 3698
<211> 108
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<400> 3698
Asp Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Thr Ser Gln Ile Ile Asn Asp Asn
            20   25   30
Tyr Phe Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Arg Leu Leu
        35   40   45
Ile Tyr Ala Thr Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Gly Asp Phe Ala Val Tyr Tyr Cys Gln His Tyr Gly Thr Ser Pro
                85   90   95
Pro Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3699
<211> 21
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<220>
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<400> 3699
cagattatta atgacaacta c 21

<210> 3700
<211> 7
<212> PRT
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<220>
<223> synthetic

<400> 3700
Gln Ile Ile Asn Asp Asn Tyr
 1   5

<210> 3701
<211> 9
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<220>
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<400> 3701
gctacatcc   9

<210> 3702
<211> 3
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<220>
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<400> 3702
Ala Thr Ser
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<210> 3703
<211> 24
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<400> 3703
cagcattatg gtacctcacc tcct   24

<210> 3704
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<220>
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<400> 3704

Gln His Tyr Gly Thr Ser Pro Pro
 1   5

<210> 3705
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<212> DNA
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tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccgtcaagtt 120
ccagggaagg gtctggagtg ggtctctctt attagttggg atggtggtag cacatactat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acagcaaaaa gtccctgtat 240
ctgcaaatga gcagtccgac aactgaggac accgccttgt attactgtgc aaaagagata 300
tcccccttcta cagatcctta ttactactac tatttcggta tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a   381

<210> 3706
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3706
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Ile Gln Arg Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Leu Ile Ser Trp Asp Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Lys Ser Leu Tyr
65   70   75   80
Leu Gln Met Ser Ser Pro Thr Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Tyr Tyr Tyr Phe
            100   105   110
Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 3707
<211> 24
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<220>
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<400> 3707
ggattcacct ttgatgatta tgcc 24

<210> 3708
<211> 8
<212> PRT
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<400> 3708
Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 3709
<211> 24
<212> DNA
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<220>
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<400> 3709
attagttggg atggtggtag caca 24

<210> 3710
<211> 8
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<220>
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<400> 3710
Ile Ser Trp Asp Gly Gly Ser Thr
1 5

<210> 3711
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3711
gcaaaagaga tatccccttc tacagatcct tattactact actatttcgg tatggacgtc 60

<210> 3712
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3712
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Tyr Tyr Tyr Phe
 1   5   10   15
Gly Met Asp Val
            20

<210> 3713
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3713
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ctctcctgca ggaccagtca gattattaat gacaactact tcgcctggta tcagcagaaa 120
cctggccagg ctcccaggct cctcatctat gctacatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cattatggta cctcacctcc ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 3714
<211> 108
<212> PRT
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<220>
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<400> 3714
Asp Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Thr Ser Gln Ile Ile Asn Asp Asn
            20   25   30
Tyr Phe Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Ala Thr Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60

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

<210> 3715
<211> 21
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<220>
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<400> 3715
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<210> 3716
<211> 7
<212> PRT
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<220>
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<400> 3716
Gln Ile Ile Asn Asp Asn Tyr
1 5

<210> 3717
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3717
gctacatcc 9

<210> 3718
<211> 3
<212> PRT
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<220>
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<400> 3718

Ala Thr Ser
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<210> 3719
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3719
cagcattatg gtacctcacc tcct 24

<210> 3720
<211> 8
<212> PRT
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<220>
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<400> 3720
Gln His Tyr Gly Thr Ser Pro Pro
 1 5

<210> 3721
<211> 381
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3721
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tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccgtcaagtt 120
ccagggaagg gtctggagtg ggtctctctt attagtgggg atggtggtag cacatactat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acagcaaaaa gtccctgtat 240
ctgcaaatga acagtccgag aactgaggac accgccttgt attactgtgc aaaagagata 300
tcccccttcta cagatcctta ttactactac tatttcggta tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a 381

<210> 3722
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3722
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Ile Gln Arg Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Leu Ile Ser Gly Asp Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Lys Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Pro Arg Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Tyr Tyr Tyr Phe
            100   105   110
Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 3723
<211> 24
<212> DNA
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<220>
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<400> 3723
ggattcacct ttgatgatta tgcc 24

<210> 3724
<211> 8
<212> PRT
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<400> 3724
Gly Phe Thr Phe Asp Asp Tyr Ala
 1   5

<210> 3725
<211> 24
<212> DNA
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<220>
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<400> 3725
attagtgggg atggtggtag caca 24

<210> 3726
<211> 8
<212> PRT
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<220>
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<400> 3726
Ile Ser Gly Asp Gly Gly Ser Thr
1 5

<210> 3727
<211> 60
<212> DNA
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<220>
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<400> 3727
gcaaaagaga tatcccttc tacagatcct tattactact actatttcgg tatggacgtc 60

<210> 3728
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3728
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Tyr Tyr Tyr Phe
1 5 10 15
Gly Met Asp Val
20

<210> 3729
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3729

gacatcgtga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcgagtca gggcattagc aattatttag cctggtatca gcagaaacca 120
gggaaagttc ctaagctcct gatctatgct gcatccactt tgcaatcagg ggtcccatct 180
cggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagatgttg caacttatta ctgtcaaaag tataacagtg cccctcggac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 3730
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3730
Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Val Ala Thr Tyr Tyr Cys Gln Lys Tyr Asn Ser Ala Pro Arg
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3731
<211> 18
<212> DNA
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<220>
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<400> 3731
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<210> 3732
<211> 6
<212> PRT
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<220>
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<400> 3732

Gln Gly Ile Ser Asn Tyr
1 5

<210> 3733
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3733
gctgcatcc 9

<210> 3734
<211> 3
<212> PRT
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<220>
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<400> 3734
Ala Ala Ser
1

<210> 3735
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3735
caaaagtata acagtgcccc tcggacg 27

<210> 3736
<211> 9
<212> PRT
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<220>
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<400> 3736
Gln Lys Tyr Asn Ser Ala Pro Arg Thr
1 5

<210> 3737
<211> 381
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3737
caggtgcagc tggtggagtc tgggggaggc gttatacagc gggggggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccgtcaagtt 120
ccagggaagg gtctggagtg ggtctctctt attagttggg atggtggcag cacatactat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acagcaaaaa gtccctgtat 240
ctgcaaatga gcagtccgac agctgaggac accgccgtgt attactgtgc aaaagagata 300
tccccttcta cagatcctta ttactactac tatttcggta tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a 381

<210> 3738
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3738
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Ile Gln Arg Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Leu Ile Ser Trp Asp Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Lys Ser Leu Tyr
65   70   75   80
Leu Gln Met Ser Ser Pro Thr Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Tyr Tyr Tyr Phe
            100   105   110
Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 3739
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3739
ggattcacct ttgatgatta tgcc 24

<210> 3740
<211> 8
<212> PRT
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<220>
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<400> 3740
Gly Phe Thr Phe Asp Asp Tyr Ala
 1 5

<210> 3741
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3741
attagttggg atggtggcag caca 24

<210> 3742
<211> 8
<212> PRT
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<220>
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<400> 3742
Ile Ser Trp Asp Gly Gly Ser Thr
 1 5

<210> 3743
<211> 60
<212> DNA
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<220>
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<400> 3743
gcaaaagaga tatccccttc tacagatcct tattactact actatttcgg tatggacgtc 60

<210> 3744
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3744
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Tyr Tyr Tyr Phe
 1   5   10   15
Gly Met Asp Val
            20

<210> 3745
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3745
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca ggaccagtca gattattaat gacaactact tcgcctggta tcagcagaaa 120
cctggccagg ctcccaggct cctcatctat gctacatcca ccagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cattatggta cctcacctcc ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 3746
<211> 108
<212> PRT
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<220>
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<400> 3746
Asp Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Thr Ser Gln Ile Ile Asn Asp Asn
            20   25   30
Tyr Phe Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Ala Thr Ser Thr Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Tyr Gly Thr Ser Pro
                85   90   95

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

<210> 3747
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3747
cagattatta atgacaacta c 21

<210> 3748
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3748
Gln Ile Ile Asn Asp Asn Tyr
1 5

<210> 3749
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3749
gctacatcc 9

<210> 3750
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3750
Ala Thr Ser
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<210> 3751
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3751
cagcattatg gtacctcacc tcct 24

<210> 3752
<211> 8
<212> PRT
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<220>
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<400> 3752
Gln His Tyr Gly Thr Ser Pro Pro
1 5

<210> 3753
<211> 381
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3753
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ccagggaagg gactggagtg ggtctctctt attagttggg atggtggttt cacacactat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acagcaaaaa gtccctgtat 240
ctgcaaatga gcagtccgac aactgaggac accgccttgt attactgtgc aaaagagata 300
tccccttcta cagatcctta ttactactac tatttcggta tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a 381

<210> 3754
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3754
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Ile Pro Arg Gly Gly
1 5 10 15

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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20                  25                  30
Ala Met His Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Leu Ile Ser Trp Asp Gly Gly Phe Thr His Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Lys Ser Leu Tyr
65                  70                  75                  80
Leu Gln Met Ser Ser Pro Thr Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
                85                  90                  95
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Tyr Tyr Tyr Phe
            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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<210> 3755
<211> 24
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<220>
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<400> 3755
ggattcacct ttgatgatta tgcc 24

<210> 3756
<211> 8
<212> PRT
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<220>
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<400> 3756
Gly Phe Thr Phe Asp Asp Tyr Ala
 1   5

<210> 3757
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3757
attagttggg atggtggttt caca 24

<210> 3758

<211> 8
<212> PRT
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<220>
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<400> 3758
Ile Ser Trp Asp Gly Gly Phe Thr
 1   5

<210> 3759
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3759
gcaaaagaga tatccccttc tacagatcct tattactact actatttcgg tatggacgtc 60

<210> 3760
<211> 20
<212> PRT
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<220>
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<400> 3760
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Tyr Tyr Tyr Phe
 1   5   10   15
Gly Met Asp Val
            20

<210> 3761
<211> 324
<212> DNA
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<400> 3761
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ctctcctgca ggaccagtca gattcttaat ggcaactact tcgcctggta tcagcagaaa 120
cctggccagg ctcccaggct cctcatctat gctacatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240

cctgaagatt ttgcagtgta ttactgtcag cattatggca cctcacctcc ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 3762
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3762
Asp Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Thr Ser Gln Ile Leu Asn Gly Asn
20 25 30
Tyr Phe Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45
Ile Tyr Ala Thr Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Tyr Gly Thr Ser Pro
85 90 95
Pro Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

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<220>
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<400> 3763
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<400> 3764
Gln Ile Leu Asn Gly Asn Tyr
1 5

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<400> 3765
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<210> 3766
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<400> 3766
Ala Thr Ser
1

<210> 3767
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<400> 3767
cagcattatg gcacctcacc tcct 24

<210> 3768
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<400> 3768
Gln His Tyr Gly Thr Ser Pro Pro
1 5

<210> 3769
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<212> DNA
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<400> 3769
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tcctgtaagg gttctggata caacttttcc aaaaactgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatggggatc atctatcctc gtgactctga tatcagatac 180
agtccgtcct tccaaggcca ggtcaccatg tcagccgaca agtccatcaa caccgcctat 240
ctgcagtgga gtagcctgaa ggcctcggac accgccatgt atttctgtgc gagactcggg 300
gacctatggc atcagtatta tggtatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 3770
<211> 122
<212> PRT
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<400> 3770
Glu Val Gln Leu Val Glu Ser Gly Gly Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Asn Phe Ser Lys Asn
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Tyr Pro Arg Asp Ser Asp Ile Arg Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Met Ser Ala Asp Lys Ser Ile Asn Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Phe Cys
                85   90   95
Ala Arg Leu Gly Asp Leu Trp His Gln Tyr Tyr Gly Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 3771
<211> 24
<212> DNA
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<220>
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<400> 3771
ggatacaact tttccaaaaa ctgg 24

<210> 3772

<211> 8
<212> PRT
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<400> 3772
Gly Tyr Asn Phe Ser Lys Asn Trp
 1   5

<210> 3773
<211> 24
<212> DNA
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<220>
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<400> 3773
atctatcctc gtgactctga tatc   24

<210> 3774
<211> 8
<212> PRT
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<220>
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<400> 3774
Ile Tyr Pro Arg Asp Ser Asp Ile
 1   5

<210> 3775
<211> 45
<212> DNA
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<400> 3775
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<210> 3776
<211> 15
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<400> 3776
Ala Arg Leu Gly Asp Leu Trp His Gln Tyr Tyr Gly Met Asp Val
 1   5   10   15

<210> 3777
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<212> DNA
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<400> 3777
gacatcctga tgacccagtc tccatcctcc ctgtctgctt ctgtaggaga cagagtcacc 60
atcacttgcc ggacgagtca gaccattagt aattatttaa attggtatca acagaaacca 120
gggaaagccc ctaaactcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcat tcttcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagtg ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

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<400> 3778
Asp Ile Leu 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 Thr Ser Gln Thr Ile Ser 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 Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ile Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ala Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

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<220>
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<400> 3779
cagaccatta gtaattat 18

<210> 3780
<211> 6
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<400> 3780
Gln Thr Ile Ser Asn Tyr
 1 5

<210> 3781
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<212> DNA
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<400> 3781
gctgcatcc 9

<210> 3782
<211> 3
<212> PRT
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<400> 3782
Ala Ala Ser
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<210> 3783
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<212> DNA
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<400> 3783
caacagagtt acagtgcccc gtacact 27

<210> 3784
<211> 9
<212> PRT
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<400> 3784
Gln Gln Ser Tyr Ser Ala Pro Tyr Thr
1 5

<210> 3785
<211> 366
<212> DNA
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cccgggaagg gcctggagtg gatggggttc atctatcctg gtgactctga taccagatat 180
agtccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatcaa tattgtctac 240
ctgcagtgga gcagcctgaa ggcctcggac accgccatgt attactgtgc gagacaggga 300
aggtatataa taacagctgg tcactttgac cactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 3786
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3786
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
1 5 10 15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Ile Asn Tyr
20 25 30
Trp Ile Gly Trp Val Arg Gln Arg Pro Gly Lys Gly Leu Glu Trp Met
35 40 45
Gly Phe Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
50 55 60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Asn Ile Val Tyr

65 70 75 80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95
Ala Arg Gln Gly Arg Tyr Ile Ile Thr Ala Gly His Phe Asp His Trp
100 105 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 3787
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3787
ggatacagct ttatcaacta ctgg 24

<210> 3788
<211> 8
<212> PRT
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<220>
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<400> 3788
Gly Tyr Ser Phe Ile Asn Tyr Trp
1 5

<210> 3789
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<212> DNA
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<400> 3789
atctatcctg gtgactctga tacc 24

<210> 3790
<211> 8
<212> PRT
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<220>
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<400> 3790
Ile Tyr Pro Gly Asp Ser Asp Thr
 1   5

<210> 3791
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3791
gcgagacagg gaaggtatat aataacagct ggtcactttg accac   45

<210> 3792
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3792
Ala Arg Gln Gly Arg Tyr Ile Ile Thr Ala Gly His Phe Asp His
 1   5   10   15

<210> 3793
<211> 321
<212> DNA
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<220>
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<400> 3793
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atcacttgcc gggcaagtca gagcattagt agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaagtcct gatctatgat gtatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag acttacaaaa ccctcacttt cggcggaggg 300
accaaggtgg agatcaaacg a   321

<210> 3794
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3794
Asp Ile Val 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 Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35   40   45
Tyr Asp Val Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Thr Tyr Lys Thr Leu Thr
                85   90   95
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3795
<211> 18
<212> DNA
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<220>
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<400> 3795
cagagcatta gtagctat 18

<210> 3796
<211> 6
<212> PRT
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<220>
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<400> 3796
Gln Ser Ile Ser Ser Tyr
 1   5

<210> 3797
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3797
gatgtatcc 9

<210> 3798
<211> 3
<212> PRT
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<220>
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<400> 3798
Asp Val Ser
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<210> 3799
<211> 24
<212> DNA
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<400> 3799
caacagactt acaaaaccct cact 24

<210> 3800
<211> 8
<212> PRT
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<400> 3800
Gln Gln Thr Tyr Lys Thr Leu Thr
 1   5

<210> 3801
<211> 378
<212> DNA
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<220>
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<400> 3801
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tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccgtcaagct 120
ccagggaagg gtctggagtg ggtctctctt attagtgggg atggtggtag cacatactat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acagcaaaaa ctccctgtat 240
ctgcaaatga acagtctgag aactgaggac accgccttgt attactgtgc aaaaggctcc 300

gactacagta actactttta ctactactac tacggtatgg acgtctgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 3802
<211> 126
<212> PRT
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<220>
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<400> 3802
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Leu Ile Ser Gly Asp Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Gly Ser Asp Tyr Ser Asn Tyr Phe Tyr Tyr Tyr Tyr Tyr Gly
            100   105   110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 3803
<211> 24
<212> DNA
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<220>
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<400> 3803
ggattcacct ttgatgatta tgcc 24

<210> 3804
<211> 8
<212> PRT
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<220>
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<400> 3804
Gly Phe Thr Phe Asp Asp Tyr Ala
 1   5

<210> 3805
<211> 24
<212> DNA
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<220>
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<400> 3805
attagtgggg atggtggtag caca 24

<210> 3806
<211> 8
<212> PRT
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<220>
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<400> 3806
Ile Ser Gly Asp Gly Gly Ser Thr
1 5

<210> 3807
<211> 57
<212> DNA
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<400> 3807
gcaaaaggct ccgactacag taactacttt tactactact actacggtat ggacgtc 57

<210> 3808
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3808
Ala Lys Gly Ser Asp Tyr Ser Asn Tyr Phe Tyr Tyr Tyr Tyr Tyr Gly
1 5 10 15
Met Asp Val

<210> 3809
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3809
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga tagagccacc 60
ctctcctgca gggccagtca gagtgtaagc agcagttact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat gctacatcca acagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cagtatgttg gctcacctcc ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 3810
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3810
Asp Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Asp Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Ala Thr Ser Asn Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Val Gly Ser Pro
                85   90   95
Pro Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3811
<211> 21
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<400> 3811
cagagtgtaa gcagcagtta c 21

<210> 3812
<211> 7
<212> PRT
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<220>
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<400> 3812
Gln Ser Val Ser Ser Ser Tyr
 1   5

<210> 3813
<211> 9
<212> DNA
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<220>
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<400> 3813
gctacatcc   9

<210> 3814
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3814
Ala Thr Ser
 1

<210> 3815
<211> 24
<212> DNA
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<220>
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<400> 3815
cagcagtatg ttggctcacc tcct   24

<210> 3816
<211> 8
<212> PRT
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<220>
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<400> 3816
Gln Gln Tyr Val Gly Ser Pro Pro
 1   5

<210> 3817
<211> 381
<212> DNA
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<400> 3817
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tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccgtcaagtt 120
ccagggaagg gtctggagtg ggtctctctc attaattggg atggacgtag tacatattat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acagcaaaaa ctccctgtgg 240
ctgcaaatga acagtctgag aactgaagac agcgccttgt attactgtgc aaaagagatt 300
tcccccttcta cagatcctta ttacttctac tacttcggta tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a   381

<210> 3818
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3818
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Leu Ile Asn Trp Asp 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 Ser Leu Trp
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Thr Glu Asp Ser Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Phe Tyr Tyr Phe
            100   105   110
Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 3819
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3819
ggattcacct ttgatgatta tgcc 24

<210> 3820
<211> 8
<212> PRT
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<220>
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<400> 3820
Gly Phe Thr Phe Asp Asp Tyr Ala
 1 5

<210> 3821
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3821
attaattggg atggacgtag taca 24

<210> 3822
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3822
Ile Asn Trp Asp Gly Arg Ser Thr
 1 5

<210> 3823
<211> 60
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 3823
gcaaaagaga tttccccttc tacagatcct tattacttct actacttcgg tatggacgtc 60

<210> 3824
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3824
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Phe Tyr Tyr Phe
 1   5   10   15
Gly Met Asp Val
            20

<210> 3825
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3825
gacatcgtga tgacccagtc tccaggcacc ctatctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcagcttct tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat gctacatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtcta ttactgtcag cagtatgttg gctcacctcc ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 3826
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3826
Asp Ile Val Met 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

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            20                  25                  30
Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35                  40                  45
Ile Tyr Ala Thr Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50                  55                  60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65                  70                  75                  80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Val Gly Ser Pro
                85                  90                  95
Pro Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3827
cagagtgtta gcagcagctt c 21

<210> 3828
<211> 7
<212> PRT
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<220>
<223> synthetic

<400> 3828
Gln Ser Val Ser Ser Ser Phe
 1   5

<210> 3829
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3829
gctacatcc 9

<210> 3830
<211> 3
<212> PRT
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<220>
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<400> 3830
Ala Thr Ser
 1

<210> 3831
<211> 24
<212> DNA
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<220>
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<400> 3831
cagcagtatg ttggctcacc tcct 24

<210> 3832
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3832
Gln Gln Tyr Val Gly Ser Pro Pro
 1   5

<210> 3833
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<212> DNA
<213> Artificial Sequence

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<400> 3833
gaggtgcagc tggtggagtc tgggggaggc gttatacagc gggggggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccgtcaagtt 120
ccagggaagg gtctggagtg ggtctctctt attagttggg atggtggtag cacatactat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acagcaaaaa gtccctgtat 240
ctgcaaatga gcagtccgac aactgaggac accgccttgt attactgtgc aaaagagata 300
tccccttcta cagatcctta ttactactac tatttcggta tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a 381

<210> 3834
<211> 127

<212> PRT
<213> Artificial Sequence

<220>
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<400> 3834
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Ile Gln Arg Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Leu Ile Ser Trp Asp Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Lys Ser Leu Tyr
65   70   75   80
Leu Gln Met Ser Ser Pro Thr Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Tyr Tyr Tyr Phe
            100   105   110
Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 3835
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3835
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<210> 3836
<211> 8
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<220>
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<400> 3836
Gly Phe Thr Phe Asp Asp Tyr Ala
 1   5

<210> 3837
<211> 24
<212> DNA

<213> Artificial Sequence

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<400> 3837
attagttggg atggtggtag caca 24

<210> 3838
<211> 8
<212> PRT
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<220>
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<400> 3838
Ile Ser Trp Asp Gly Gly Ser Thr
 1 5

<210> 3839
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3839
gcaaaagaga tatcccttc tacagatcct tattactact actatttcgg tatggacgtc 60

<210> 3840
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3840
Ala Lys Glu Ile Ser Pro Ser Thr Asp Pro Tyr Tyr Tyr Tyr Tyr Phe
 1 5 10 15
Gly Met Asp Val
 20

<210> 3841
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3841
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca ggaccagtca gattattaat gacaactact tcgcctggta tcagcagaaa 120
cctggccagg ctcccaggct cctcatctat gctacatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cattatggta cctcacctcc ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 3842
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3842
Asp Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Thr Ser Gln Ile Ile Asn Asp Asn
            20   25   30
Tyr Phe Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Ala Thr Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Tyr Gly Thr Ser Pro
                85   90   95
Pro Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3843
<211> 21
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<220>
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<400> 3843
cagattatta atgacaacta c 21

<210> 3844
<211> 7
<212> PRT
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<220>
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<400> 3844
Gln Ile Ile Asn Asp Asn Tyr
 1   5

<210> 3845
<211> 9
<212> DNA
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<220>
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<400> 3845
gctacatcc   9

<210> 3846
<211> 3
<212> PRT
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<220>
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<400> 3846
Ala Thr Ser
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<210> 3847
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3847
cagcattatg gtacctcacc tcct   24

<210> 3848
<211> 8
<212> PRT
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<220>
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<400> 3848
Gln His Tyr Gly Thr Ser Pro Pro
 1   5

<210> 3849
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3849
caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agttactact ggagctggat ccggcagccc 120
ccagggaagg gactggagtg gattggttat atctataata gtgggagcac caactacaac 180
ccctccctca ggagtcgact caccatttca gtagacacgt ccaagaacca gttctccctg 240
aagctgagct ctgtgaccgc cacagacacg gccgtgtatc actgtgcgag aagtcattac 300
gatattttga ctggttatta taatgggtac tttgactact ggggccaggg aaccacggtc 360
accgtctcct ca   372

<210> 3850
<211> 124
<212> PRT
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<220>
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<400> 3850
Gln Val Gln Leu Val 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 Asn Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Arg
    50   55   60
Ser Arg Leu Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Thr Asp Thr Ala Val Tyr His Cys Ala
                85   90   95
Arg Ser His Tyr Asp Ile Leu Thr Gly Tyr Tyr Asn Gly Tyr Phe Asp
            100   105   110
Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 3851
<211> 24
<212> DNA

<213> Artificial Sequence

<220>
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<400> 3851
ggtggctcca tcagtagtta ctac 24

<210> 3852
<211> 8
<212> PRT
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<220>
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<400> 3852
Gly Gly Ser Ile Ser Ser Tyr Tyr
1 5

<210> 3853
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3853
atctataata gtgggagcac c 21

<210> 3854
<211> 7
<212> PRT
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<220>
<223> synthetic

<400> 3854
Ile Tyr Asn Ser Gly Ser Thr
1 5

<210> 3855
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3855
gcgagaagtc attacgatat tttgactggt tattataatg ggtactttga ctac 54

<210> 3856
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3856
Ala Arg Ser His Tyr Asp Ile Leu Thr Gly Tyr Tyr Asn Gly Tyr Phe
 1 5 10 15
Asp Tyr

<210> 3857
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3857
gacatcctga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gaatattttg ttcagttcca acaataagaa ctacttagct 120
tggtaccagc agaaaccagg acagcctcct aaactactca tttactgggc atctacccgg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca atttattact gtcagcaata ttataatact 300
ccgtggacgt tcggccaagg gaccaaggtg gagatcaaac ga 342

<210> 3858
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3858
Asp Ile Leu Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Asn Ile Leu Phe Ser
 20 25 30
Ser Asn Asn Lys Asn Tyr Leu Ala 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 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 Ile Tyr Tyr Cys Gln Gln
85 90 95
Tyr Tyr Asn Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110
Lys Arg

<210> 3859
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3859
cagaatattt tgttcagttc caacaataag aactac 36

<210> 3860
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3860
Gln Asn Ile Leu Phe Ser Ser Asn Asn Lys Asn Tyr
1 5 10

<210> 3861
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3861
tgggcatct 9

<210> 3862
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3862
Trp Ala Ser
 1

<210> 3863
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3863
cagcaatatt ataatactcc gtggacg 27

<210> 3864
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3864
Gln Gln Tyr Tyr Asn Thr Pro Trp Thr
 1 5

<210> 3865
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3865
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag tatagactat 180
gcggactctg tgaagggccg attcaccgtc tccagagaca acgccaagaa ctccctgtat 240
ctgcacatga acagtctgag agttgaggac acggccttgt attactgtgc aaaagatatg 300
accttacgat ttttggagtg gttaaacggt atggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 3866
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3866
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Asp 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 His Met Asn Ser Leu Arg Val Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Met Thr Leu Arg Phe Leu Glu Trp Leu Asn Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 3867
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3867
ggattcacct ttgatgatta tgcc   24

<210> 3868
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3868
Gly Phe Thr Phe Asp Asp Tyr Ala
 1   5

<210> 3869
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 3869
attagttgga atagtggtag tata 24

<210> 3870
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3870
Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 3871
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3871
gcaaaagata tgaccttacg atttttggag tggttaaacg gtatggacgt c 51

<210> 3872
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3872
Ala Lys Asp Met Thr Leu Arg Phe Leu Glu Trp Leu Asn Gly Met Asp
1 5 10 15
Val

<210> 3873
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3873
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gggtgttaca agcacctact tagcctggta ccagcagaaa 120
cctggccagg ttcccaggct cctcatctat ggtgcatcca acagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcggtgta ttactgtcag caatataata actcaccgct cactttcggc 300
ggagggacca aggtggagat caaacga 327

<210> 3874
<211> 109
<212> PRT
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<220>
<223> synthetic

<400> 3874
Asp Ile Val Met 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 Gly Val Thr Ser Thr
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Val Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Asn Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Ser Pro
                85   90   95
Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3875
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3875
cagggtgtta caagcaccta c 21

<210> 3876
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3876
Gln Gly Val Thr Ser Thr Tyr
 1   5

<210> 3877
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3877
ggtgcatcc   9

<210> 3878
<211> 3
<212> PRT
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<220>
<223> synthetic

<400> 3878
Gly Ala Ser
 1

<210> 3879
<211> 27
<212> DNA
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<220>
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<400> 3879
cagcaatata ataactcacc gctcact   27

<210> 3880
<211> 9
<212> PRT
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<220>
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<400> 3880
Gln Gln Tyr Asn Asn Ser Pro Leu Thr
 1   5

<210> 3881
<211> 360
<212> DNA
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<220>
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<400> 3881
gaggtgcagc tggtggagtc tgggggaggg ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc agctatgcca tgacctgggt ccgccaggat 120
ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtcataa cacatactat 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacactgtat 240
ctccaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaattgggc 300
atagtgggag atactccctt tgactactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 3882
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3882
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 Thr Trp Val Arg Gln Asp Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Ser Gly Ser Gly His Asn 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 Tyr Cys
                85   90   95
Ala Lys Leu Gly Ile Val Gly Asp Thr Pro Phe Asp Tyr Trp Gly Gln
            100   105   110
Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 3883
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3883
ggattcacct ttagcagcta tgcc 24

<210> 3884
<211> 8
<212> PRT
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<220>
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<400> 3884
Gly Phe Thr Phe Ser Ser Tyr Ala
1 5

<210> 3885
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3885
attagtggta gtggtcataa caca 24

<210> 3886
<211> 8
<212> PRT
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<220>
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<400> 3886
Ile Ser Gly Ser Gly His Asn Thr
1 5

<210> 3887
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3887
gcgaaattgg gcatagtggg agatactccc tttgactac 39

<210> 3888
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3888
Ala Lys Leu Gly Ile Val Gly Asp Thr Pro Phe Asp Tyr
 1   5   10

<210> 3889
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3889
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcatgagc agctatttac attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatcccgtt tgcaaagtgg ggtcccatcc 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agtttcagta cccctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga   324

<210> 3890
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3890
Asp Ile Leu 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 Ser Met Ser Ser Tyr
            20   25   30
Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Arg Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Phe Ser Thr Pro Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3891
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3891
cagagcatga gcagctat 18

<210> 3892
<211> 6
<212> PRT
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<220>
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<400> 3892
Gln Ser Met Ser Ser Tyr
 1 5

<210> 3893
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3893
gctgcatcc 9

<210> 3894
<211> 3
<212> PRT
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<220>
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<400> 3894
Ala Ala Ser
 1

<210> 3895
<211> 27

<212> DNA
<213> Artificial Sequence

<220>
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<400> 3895
caacagagtt tcagtacccc tccgacg 27

<210> 3896
<211> 9
<212> PRT
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<220>
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<400> 3896
Gln Gln Ser Phe Ser Thr Pro Pro Thr
1 5

<210> 3897
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3897
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggagggtc cctgagactc 60
tcctgtgcat cctctggatt caccctcagt agttatgaag tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtttcatat attagcagaa gtagtagcac catatattac 180
gccgactctg tgaagggccg attcaccatc tccagagaca acgccaagaa tttattgttt 240
ctgcaaatga acagcctgag agccgaggac acggctgttt attactgtgc gagagatcga 300
ggctacgtct ccgggggtgg tatggacgtc tggggccaag ggaccacggt caccgtctcc 360
tca 363

<210> 3898
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3898
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 Ser Ser Gly Phe Thr Leu Ser Ser Tyr
20 25 30

Glu Val Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Tyr Ile Ser Arg Ser Ser Ser Thr Ile Tyr Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Leu 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 Asp Arg Gly Tyr Val Ser Gly Gly Gly Met Asp Val Trp Gly
100 105 110
Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 3899
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3899
ggattcaccc tcagtagtta tgaa 24

<210> 3900
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3900
Gly Phe Thr Leu Ser Ser Tyr Glu
1 5

<210> 3901
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3901
attagcagaa gtagtagcac cata 24

<210> 3902
<211> 8
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 3902
Ile Ser Arg Ser Ser Ser Thr Ile
 1   5

<210> 3903
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3903
gcgagagatc gaggctacgt ctccgggggt ggtatggacg tc   42

<210> 3904
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3904
Ala Arg Asp Arg Gly Tyr Val Ser Gly Gly Gly Met Asp Val
 1   5   10

<210> 3905
<211> 324
<212> DNA
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<220>
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<400> 3905
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atcacttgcc gggcaagtca gagcattagc acctatttaa attggtatca gcagaaatca 120
gggaaagccc ctaagatcct gatctttgct gcatccagtt tgcaaagtcg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcaccag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag acttacagtc ccccattcac tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 3906
<211> 108

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3906
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 Ser Ile Ser Thr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Ser Gly Lys Ala Pro Lys Ile Leu Ile
        35   40   45
Phe Ala Ala Ser Ser Leu Gln Ser Arg Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Thr Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Thr Tyr Ser Pro Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3907
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3907
cagagcatta gcacctat   18

<210> 3908
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3908
Gln Ser Ile Ser Thr Tyr
 1   5

<210> 3909
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3909
gctgcatcc 9

<210> 3910
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<210> 3912
<211> 9
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<400> 3912
Gln Gln Thr Tyr Ser Pro Pro Phe Thr
1 5

<210> 3913
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<212> DNA
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<400> 3913

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tcctgcaagg cttctggtta cacctttacc acctatggta tcagctgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggatgg atcagcactt acaatggtaa cagaaattat 180
gcacagaagt tccagggcag agtcaccatg accactgaca catccacgag tacagcctac 240
atggagctga ggagcctgtc atctgacgac acggccatgt attactgtgc gagaggaagg 300
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<400> 3914
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1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Thr Tyr
20 25 30
Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Trp Ile Ser Thr Tyr Asn Gly Asn Arg Asn Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80
Met Glu Leu Arg Ser Leu Ser Ser Asp Asp Thr Ala Met Tyr Tyr Cys
85 90 95
Ala Arg Gly Arg Leu Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr Met
100 105 110
Val Thr Val Ser Ser
115

<210> 3915
<211> 24
<212> DNA
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<400> 3915
ggttacacct ttaccaccta tggt 24

<210> 3916
<211> 8
<212> PRT
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<220>
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<400> 3916
Gly Tyr Thr Phe Thr Thr Tyr Gly
 1   5

<210> 3917
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<212> DNA
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<220>
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<400> 3917
atcagcactt acaatggtaa caga   24

<210> 3918
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<400> 3918
Ile Ser Thr Tyr Asn Gly Asn Arg
 1   5

<210> 3919
<211> 30
<212> DNA
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<400> 3919
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<400> 3920
Ala Arg Gly Arg Leu Asp Ala Phe Asp Ile
 1   5   10

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<212> DNA
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<400> 3921
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atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtgtatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ttgtcaacag agttacatta cccatcctac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 3922
<211> 108
<212> PRT
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<220>
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<400> 3922
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 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Val Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ile Thr His Pro
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3923
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<400> 3923

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<210> 3924
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<220>
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<400> 3924
Gln Ser Ile Ser Ser Tyr
1 5

<210> 3925
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<212> DNA
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<400> 3925
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<210> 3926
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<400> 3926
Ala Ala Ser
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<210> 3927
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<400> 3927
caacagagtt acattaccca tcctact 27

<210> 3928
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<212> PRT
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<400> 3928
Gln Gln Ser Tyr Ile Thr His Pro Thr
 1   5

<210> 3929
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ccagggaagg ggctggagtg ggtctcatat attagtagaa gcagtaatac catatattac 180
gccgactctg tgaagggccg attcaccatc tccagagaca acgccaagaa tttactgttt 240
ctgcaaatga acagcctgag agccgacgac acggctgttt attattgtgc gagagatcga 300
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tca   363

<210> 3930
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<400> 3930
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 Ser Ser Thr Phe Thr Leu Ser Ser Tyr
            20   25   30
Glu Val Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Tyr Ile Ser Arg Ser Ser Asn Thr Ile Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Leu Leu Phe
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Asp Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Arg Gly Tyr Val Ser Gly Gly Gly Met Asp Val Trp Gly
            100   105   110
Gln Gly Thr Thr Val Thr Val Ser Ser

115 120

<210> 3931
<211> 24
<212> DNA
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<400> 3931
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<210> 3932
<211> 8
<212> PRT
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<220>
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<400> 3932
Thr Phe Thr Leu Ser Ser Tyr Glu
1 5

<210> 3933
<211> 24
<212> DNA
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<220>
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<400> 3933
attagtagaa gcagtaatac cata 24

<210> 3934
<211> 8
<212> PRT
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<220>
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<400> 3934
Ile Ser Arg Ser Ser Asn Thr Ile
1 5

<210> 3935

<211> 42
<212> DNA
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<220>
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<400> 3935
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<210> 3936
<211> 14
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<400> 3936
Ala Arg Asp Arg Gly Tyr Val Ser Gly Gly Gly Met Asp Val
1 5 10

<210> 3937
<211> 324
<212> DNA
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gggaaagccc ctaagctcct gatctttgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcaccag tctgcaacct 240
gaagattttg caatttacta ctgtcaacag acttacagtc ccccattcac tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 3938
<211> 108
<212> PRT
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<220>
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<400> 3938
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Phe Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
20 25 30

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Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Phe Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Thr Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Ile Tyr Tyr Cys Gln Gln Thr Tyr Ser Pro Pro Phe
                85                  90                  95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 3939
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<400> 3939
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<210> 3940
<211> 6
<212> PRT
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<220>
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<400> 3940
Gln Ser Ile Ser Ser Tyr
 1   5

<210> 3941
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3941
gctgcatcc 9

<210> 3942
<211> 3
<212> PRT
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<220>
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<400> 3942
Ala Ala Ser
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<210> 3943
<211> 27
<212> DNA
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<220>
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<400> 3943
caacagactt acagtccccc attcact 27

<210> 3944
<211> 9
<212> PRT
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<220>
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<400> 3944
Gln Gln Thr Tyr Ser Pro Pro Phe Thr
 1 5

<210> 3945
<211> 357
<212> DNA
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<220>
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acctgcactg tctctggtgc ctccatcagt aattactact ggacctggat ccgtcagccc 120
cccgggaagg gactagagtg gattggatat atccattata gtgggagaat taactataat 180
ccctccctca agagtcgagt caccatctca atagacacgt ccaaaaacca gttctccctg 240
aaactcagct ctgtgaccgc cgcagacacg gccgtgtatt actgtgcgag agagaggagg 300
gcactaactg gggaccttga ctactggggc cagggaagcc tggtcaccgt ctcctca 357

<210> 3946
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3946
Glu Val Gln Leu Val 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 Ala Ser Ile Ser Asn Tyr
            20   25   30
Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile His Tyr Ser Gly Arg Ile Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Ile Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Glu Arg Arg Ala Leu Thr Gly Asp Leu Asp Tyr Trp Gly Gln Gly
            100   105   110
Ser Leu Val Thr Val Ser Ser
        115

<210> 3947
<211> 24
<212> DNA
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<220>
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<400> 3947
ggtgcctcca tcagtaatta ctac   24

<210> 3948
<211> 8
<212> PRT
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<220>
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<400> 3948
Gly Ala Ser Ile Ser Asn Tyr Tyr
 1   5

<210> 3949
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3949
atccattata gtgggagaat t 21

<210> 3950
<211> 7
<212> PRT
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<220>
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<400> 3950
Ile His Tyr Ser Gly Arg Ile
1 5

<210> 3951
<211> 39
<212> DNA
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<400> 3951
gcgagagaga ggagggcact aactggggac cttgactac 39

<210> 3952
<211> 13
<212> PRT
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<220>
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<400> 3952
Ala Arg Glu Arg Arg Ala Leu Thr Gly Asp Leu Asp Tyr
1 5 10

<210> 3953
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3953

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atcacttgcc gggcaagtca gagcattaga acctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctttgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcggtggatc tgggacagat ttcactctca ccattggcag tctgcaacat 240
gaagattttg cgacttatta ctgtcaacag agttacaatc ccccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 3954
<211> 108
<212> PRT
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<220>
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<400> 3954
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Val Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Arg Thr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Phe Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Gly Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Gly Ser Leu Gln His
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Asn Pro Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3955
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3955
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<210> 3956
<211> 6
<212> PRT
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<220>
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<400> 3956

Gln Ser Ile Arg Thr Tyr
1 5

<210> 3957
<211> 9
<212> DNA
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<220>
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<400> 3957
gctgcatcc 9

<210> 3958
<211> 3
<212> PRT
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<220>
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<400> 3958
Ala Ala Ser
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<210> 3959
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3959
caacagagtt acaatccccc gctcact 27

<210> 3960
<211> 9
<212> PRT
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<220>
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<400> 3960
Gln Gln Ser Tyr Asn Pro Pro Leu Thr
1 5

<210> 3961
<211> 354
<212> DNA
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<220>
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<400> 3961
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tcctgtgcag cctctggatt cacctttagc acctttgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagttcta gtggtgttag cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaaggcagc 300
agctggtact actttgacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 3962
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3962
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 Phe
            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 Ser Ser Gly Val 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 Tyr Cys
                85   90   95
Ala Lys Gly Ser Ser Trp Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
            100   105   110
Leu Val Thr Val Ser Ser
        115

<210> 3963
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3963

ggattcacct ttagcacctt tgcc 24

<210> 3964
<211> 8
<212> PRT
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<220>
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<400> 3964
Gly Phe Thr Phe Ser Thr Phe Ala
1 5

<210> 3965
<211> 24
<212> DNA
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<220>
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<400> 3965
attagttcta gtggtgttag caca 24

<210> 3966
<211> 8
<212> PRT
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<220>
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<400> 3966
Ile Ser Ser Ser Gly Val Ser Thr
1 5

<210> 3967
<211> 33
<212> DNA
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<220>
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<400> 3967
gcgaaaggca gcagctggta ctactttgac tac 33

<210> 3968
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<212> PRT
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<220>
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<400> 3968
Ala Lys Gly Ser Ser Trp Tyr Tyr Phe Asp Tyr
 1   5   10

<210> 3969
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<212> DNA
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<220>
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<400> 3969
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ctctcctgca gggccagtca gagtgttagc agtagttact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatcccg 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cagtatggtg gctcacctcc cacttttggc 300
caggggacca aggtggagat caaacga   327

<210> 3970
<211> 109
<212> PRT
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<220>
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<400> 3970
Asp Ile Val Met 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
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Gly Ser Pro
                85   90   95
Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3971
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3971
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<210> 3972
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3972
Gln Ser Val Ser Ser Ser Tyr
1 5

<210> 3973
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3973
ggtgcatcc 9

<210> 3974
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3974
Gly Ala Ser
1

<210> 3975
<211> 27
<212> DNA
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<220>
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<400> 3975
cagcagtatg gtggctcacc tcccact 27

<210> 3976
<211> 9
<212> PRT
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<220>
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<400> 3976
Gln Gln Tyr Gly Gly Ser Pro Pro Thr
 1 5

<210> 3977
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<212> DNA
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<400> 3977
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tcctgtgcat cctctggatt caccctcagt agttatgaag tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtttcatac attagtagaa gtagtagcac catatattac 180
ggcgactctg tgaagggccg attcaccatt tccagagaca acgccaagaa ctcactgttt 240
ctgcaaatga acagcctgag agccgaggac acggctgttt attactgtgc gagagatcga 300
ggctacgtct ccgggggtgg tatggacgtc tggggccaag ggaccacggt caccgtctcc 360
tca 363

<210> 3978
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3978
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 Ser Ser Gly Phe Thr Leu Ser Ser Tyr
 20 25 30
Glu Val Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

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Ser Tyr Ile Ser Arg Ser Ser Ser Thr Ile Tyr Tyr Gly 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 Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Asp Arg Gly Tyr Val Ser Gly Gly Gly Met Asp Val Trp Gly
            100                 105                 110
Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120
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<400> 3979
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<210> 3980
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<212> PRT
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<220>
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<400> 3980
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Gly Phe Thr Leu Ser Ser Tyr Glu
 1               5
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<210> 3981
<211> 24
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<213> Artificial Sequence

<220>
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<400> 3981
attagtagaa gtagtagcac cata 24

<210> 3982
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3982
Ile Ser Arg Ser Ser Ser Thr Ile
 1   5

<210> 3983
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3983
gcgagagatc gaggctacgt ctccgggggt ggtatggacg tc   42

<210> 3984
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<400> 3984
Ala Arg Asp Arg Gly Tyr Val Ser Gly Gly Gly Met Asp Val
 1   5   10

<210> 3985
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3985
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagatcct gatctttgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcaccag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag acttacagtc ccccattcac tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 3986
<211> 108
<212> PRT
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<220>
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<400> 3986
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 Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Ile Leu Ile
        35   40   45
Phe Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Thr Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Thr Tyr Ser Pro Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 3987
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3987
cagagcatta gcagctat   18

<210> 3988
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3988
Gln Ser Ile Ser Ser Tyr
 1   5

<210> 3989
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3989
gctgcatcc 9

<210> 3990
<211> 3
<212> PRT
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<220>
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<400> 3990
Ala Ala Ser
 1

<210> 3991
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3991
caacagactt acagtccccc attcact 27

<210> 3992
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 3992
Gln Gln Thr Tyr Ser Pro Pro Phe Thr
 1   5

<210> 3993
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
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<400> 3993
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agtaattact ggaactggat ccggcagtcc 120

ccagggaagg gactggaatg gattggatat atctttcaca ctggacgcac caactacagc 180
ccctccctca agagtcgagt caccacatca gtagacacgt ccaagaacca gttctccctg 240
aagctgactt ctgtgaccgc cgcagacacg gccgtgtatt actgtgtgag agagaggagg 300
gcactaactg gggactttga ctactggggc cagggaacca cggtcaccgt ctcctca 357

<210> 3994
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3994
Glu Val Gln Leu Val 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 Asn
20 25 30
Tyr Trp Asn Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45
Gly Tyr Ile Phe His Thr Gly Arg Thr Asn Tyr Ser Pro Ser Leu Lys
50 55 60
Ser Arg Val Thr Thr Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Val
85 90 95
Arg Glu Arg Arg Ala Leu Thr Gly Asp Phe Asp Tyr Trp Gly Gln Gly
100 105 110
Thr Thr Val Thr Val Ser Ser
115

<210> 3995
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3995
ggtggctcca tcagtagtaa ttac 24

<210> 3996
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3996

Gly Gly Ser Ile Ser Ser Asn Tyr
1 5

<210> 3997
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3997
atctttcaca ctggacgcac c 21

<210> 3998
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3998
Ile Phe His Thr Gly Arg Thr
1 5

<210> 3999
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 3999
gtgagagaga ggagggcact aactggggac tttgactac 39

<210> 4000
<211> 13
<212> PRT
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<220>
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<400> 4000
Val Arg Glu Arg Arg Ala Leu Thr Gly Asp Phe Asp Tyr
1 5 10

<210> 4001
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4001
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcaagtca gagcattagc aggtatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatgct acatccactt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttt caacttacta ctgtcagcag agttacagta tcccggtcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 4002
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4002
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 Ser Ile Ser Arg Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Thr 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 Phe Ser Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ile Pro Val
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4003
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4003
cagagcatta gcaggtat 18

<210> 4004
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4004
Gln Ser Ile Ser Arg Tyr
 1   5

<210> 4005
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4005
gctacatcc 9

<210> 4006
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4006
Ala Thr Ser
 1

<210> 4007
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4007
cagcagagtt acagtatccc ggtcact 27

<210> 4008
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4008
Gln Gln Ser Tyr Ser Ile Pro Val Thr
 1   5

<210> 4009
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4009
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgtactg tctatggtgg gtccttcaat tattactact ggacctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcaatcata gtggaagcac caactacaat 180
ccgtccctca agagtcgagt caccatatca gtagacacgc ccaagaacca gttctccctg 240
aaattgaact ctgtgaccgc cgcggacacg gctgtttatt actgtgcgag aggccgaata 300
acagcagctg tctctgatgc ttttgatatc tggggccaag ggacaatggt caccgtctcc 360
tca   363

<210> 4010
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4010
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Tyr Gly Gly Ser Phe Asn Tyr Tyr
            20   25   30
Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asn His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Pro Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Asn Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Arg Ile Thr Ala Ala Val Ser Asp Ala Phe Asp Ile Trp Gly
            100   105   110
Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 4011
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4011
ggtgggtcct tcaattatta ctac 24

<210> 4012
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4012
Gly Gly Ser Phe Asn Tyr Tyr Tyr
1 5

<210> 4013
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4013
atcaatcata gtggaagcac c 21

<210> 4014
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4014
Ile Asn His Ser Gly Ser Thr
1 5

<210> 4015
<211> 45
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 4015
gcgagaggcc gaataacagc agctgtctct gatgcttttg atatc 45

<210> 4016
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4016
Ala Arg Gly Arg Ile Thr Ala Ala Val Ser Asp Ala Phe Asp Ile
 1   5   10   15

<210> 4017
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4017
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat agtacatccg acagggccac tggcatccca 180
gacagattca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cagtatggtg acagattcat tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 4018
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4018
Asp Ile Val Met 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
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45

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

<210> 4019
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4019
cagagtgtta gcagcagcta c 21

<210> 4020
<211> 7
<212> PRT
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<220>
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<400> 4020
Gln Ser Val Ser Ser Ser Tyr
1 5

<210> 4021
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4021
agtacatcc 9

<210> 4022
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4022
Ser Thr Ser
 1

<210> 4023
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4023
cagcagtatg gtgacagatt catt 24

<210> 4024
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4024
Gln Gln Tyr Gly Asp Arg Phe Ile
 1 5

<210> 4025
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4025
caggtgcagc tgctgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgctg tctatggtgg gtccttcaac tattactact ggacctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcaatcata gtggaagcac caactacaat 180
ccgtccctca agagtcgagt caccatatca gtagacacgc ccaagaacca gttctccctg 240
aaattgagct ctgtgaccgc cgcggacacg gctgtttatt actgtgcgag aggccgaata 300
acagcagctg tctctgatgc ttttgatatc tggggccaag ggacaatggt caccgtctct 360
tca 363

<210> 4026
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4026
Gln Val Gln Leu Leu Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Asn Tyr Tyr
            20   25   30
Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asn His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Pro Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Arg Ile Thr Ala Ala Val Ser Asp Ala Phe Asp Ile Trp Gly
            100   105   110
Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 4027
<211> 24
<212> DNA
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<220>
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<400> 4027
ggtgggtcct tcaactatta ctac   24

<210> 4028
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4028
Gly Gly Ser Phe Asn Tyr Tyr Tyr
 1   5

<210> 4029
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 4029
atcaatcata gtggaagcac c 21

<210> 4030
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4030
Ile Asn His Ser Gly Ser Thr
1 5

<210> 4031
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4031
gcgagaggcc gaataacagc agctgtctct gatgcttttg atatc 45

<210> 4032
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4032
Ala Arg Gly Arg Ile Thr Ala Ala Val Ser Asp Ala Phe Asp Ile
1 5 10 15

<210> 4033
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4033
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60

ctctcctgca gggccagtca gagtgttagc agcagttact tagcctggta ccaacagaaa 120
cctggccagg ctcccaggct cctcatctat ggtacatccg acagggccac tggcatccca 180
gacagattca gtggcagtgg gtccgggaca gaattcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cagtttgatg acagattcat tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 4034
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4034
Asp Ile Val Met 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
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Thr Ser Asp Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Phe Asp Asp Arg Phe
                85   90   95
Ile Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4035
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4035
cagagtgtta gcagcagtta c 21

<210> 4036
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4036
Gln Ser Val Ser Ser Ser Tyr

1 5

<210> 4037
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4037
ggtacatcc 9

<210> 4038
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4038
Gly Thr Ser
1

<210> 4039
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4039
cagcagtttg atgacagatt catt 24

<210> 4040
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4040
Gln Gln Phe Asp Asp Arg Phe Ile
1 5

<210> 4041

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

<220>
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<400> 4041
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tcctgtgcag cctctggatt cacctttagc acctatgcca tgacctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtcataa cacatactat 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacactgtat 240
ctccaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaattgggc 300
atagtgggag atactccctt tgactactgg ggccagggaa ccatggtcac cgtctcctca 360

<210> 4042
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4042
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 Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Ser Gly Ser Gly His Asn 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 Tyr Cys
                85   90   95
Ala Lys Leu Gly Ile Val Gly Asp Thr Pro Phe Asp Tyr Trp Gly Gln
            100   105   110
Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 4043
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4043

ggattcacct ttagcaccta tgcc 24

<210> 4044
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4044
Gly Phe Thr Phe Ser Thr Tyr Ala
1 5

<210> 4045
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4045
attagtggta gtggtcataa caca 24

<210> 4046
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4046
Ile Ser Gly Ser Gly His Asn Thr
1 5

<210> 4047
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4047
gcgaaattgg gcatagtggg agatactccc tttgactac 39

<210> 4048
<211> 13

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4048
Ala Lys Leu Gly Ile Val Gly Asp Thr Pro Phe Asp Tyr
 1   5   10

<210> 4049
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4049
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atcacttgcc gggcaagtca gagcatgagc agctatttac attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatgct gcatcccgtt tgcaaggtgg ggtcccatcc 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg catcttacta ctgtcaacag agtttcagta cccctccgac gttcggccag 300
gggaccaagg tggagatcaa acga   324

<210> 4050
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4050
Asp Ile Leu 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 Ser Met Ser Ser Tyr
            20   25   30
Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Arg Leu Gln Gly Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Ser Tyr Tyr Cys Gln Gln Ser Phe Ser Thr Pro Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4051
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4051
cagagcatga gcagctat 18

<210> 4052
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4052
Gln Ser Met Ser Ser Tyr
1 5

<210> 4053
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4053
gctgcatcc 9

<210> 4054
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4054
Ala Ala Ser
1

<210> 4055
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4055
caacagagtt tcagtacccc tccgacg 27

<210> 4056
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4056
Gln Gln Ser Phe Ser Thr Pro Pro Thr
1 5

<210> 4057
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4057
caggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc acctttgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagttcta gtggtgttag cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaaggcagc 300
agctggtact actttgacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 4058
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4058
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Phe
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 Ser Ser Gly Val Ser Thr Tyr Tyr Ala Asp Ser Val

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    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 Gly Ser Ser Trp Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
            100                 105                 110
Leu Val Thr Val Ser Ser
        115
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<210> 4059
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<212> DNA
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<220>
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<400> 4059
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<210> 4060
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<220>
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<400> 4060

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Gly Phe Thr Phe Ser Thr Phe Ala
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<210> 4061
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<212> DNA
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<220>
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<400> 4061
attagttcta gtggtgttag caca 24

<210> 4062
<211> 8
<212> PRT
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<400> 4062
Ile Ser Ser Ser Gly Val Ser Thr
 1   5

<210> 4063
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4063
gcgaaaggca gcagctggta ctactttgac tac   33

<210> 4064
<211> 11
<212> PRT
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<220>
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<400> 4064
Ala Lys Gly Ser Ser Trp Tyr Tyr Phe Asp Tyr
 1   5   10

<210> 4065
<211> 327
<212> DNA
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<400> 4065
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agtagttact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatcccg 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cagtatggtg gctcacctcc cacttttggc 300
caggggacca aggtggagat caaacga   327

<210> 4066
<211> 109
<212> PRT
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<220>
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<400> 4066
Asp Ile Val Met 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
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Gly Ser Pro
                85   90   95
Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4067
<211> 21
<212> DNA
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<220>
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<400> 4067
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<210> 4068
<211> 7
<212> PRT
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<220>
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<400> 4068
Gln Ser Val Ser Ser Ser Tyr
 1   5

<210> 4069
<211> 9
<212> DNA
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<220>
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<400> 4069
ggtgcatcc 9

<210> 4070
<211> 3
<212> PRT
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<220>
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<400> 4070
Gly Ala Ser
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<210> 4071
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4071
cagcagtatg gtggctcacc tcccact 27

<210> 4072
<211> 9
<212> PRT
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<220>
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<400> 4072
Gln Gln Tyr Gly Gly Ser Pro Pro Thr
1 5

<210> 4073
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4073
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tcctgtgaag cctctggatt cacctttatc aactatgcca tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attgacgtta gtggtggtag cacatactac 180

gcagactccg tgaagggccg gttcaccatc tccagagaca attccaaaaa cacactatat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaaccccac 300
tccctacgat ttgtggagtg gtccttggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 4074
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4074
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ser Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Glu Ala Ser Gly Phe Thr Phe Ile 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 Ala Ile Asp Val Ser Gly Gly 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 Tyr Cys
                85   90   95
Ala Lys Pro His Ser Leu Arg Phe Val Glu Trp Ser Leu Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 4075
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4075
ggattcacct ttatcaacta tgcc 24

<210> 4076
<211> 8
<212> PRT
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<220>
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<400> 4076

Gly Phe Thr Phe Ile Asn Tyr Ala
1 5

<210> 4077
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4077
attgacgtta gtggtggtag caca 24

<210> 4078
<211> 8
<212> PRT
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<220>
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<400> 4078
Ile Asp Val Ser Gly Gly Ser Thr
1 5

<210> 4079
<211> 45
<212> DNA
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<220>
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<400> 4079
gcgaaacccc actccctacg atttgtggag tggtccttgg acgtc 45

<210> 4080
<211> 15
<212> PRT
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<220>
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<400> 4080
Ala Lys Pro His Ser Leu Arg Phe Val Glu Trp Ser Leu Asp Val
1 5 10 15

<210> 4081
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4081
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atcacttgcc gggcaagtca gagcattagc agctatgtga gttggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatcccgtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttactc ctgtctacag agttacggta accctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 4082
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4082
Asp Ile Val 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 Ser Ile Ser Ser Tyr
            20   25   30
Val Ser Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Arg Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Ser Cys Leu Gln Ser Tyr Gly Asn Pro Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4083
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4083
cagagcatta gcagctat 18

<210> 4084
<211> 6
<212> PRT
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<220>
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<400> 4084
Gln Ser Ile Ser Ser Tyr
 1   5

<210> 4085
<211> 9
<212> DNA
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<220>
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<400> 4085
gctgcatcc   9

<210> 4086
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4086
Ala Ala Ser
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<210> 4087
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4087
ctacagagtt acggtaaccc tccgacg   27

<210> 4088
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 4088
Leu Gln Ser Tyr Gly Asn Pro Pro Thr
 1   5

<210> 4089
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4089
gaggtgcagc tggtggagtc tgggggaggg ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc agctatgcca tgacctgggt ccgccaggat 120
ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtcataa cacatactat 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacactgtat 240
ctccaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaattgggc 300
atagtgggag atactccctt tgactactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 4090
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4090
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 Thr Trp Val Arg Gln Asp Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Ser Gly Ser Gly His Asn 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 Tyr Cys
                85   90   95
Ala Lys Leu Gly Ile Val Gly Asp Thr Pro Phe Asp Tyr Trp Gly Gln
            100   105   110
Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 4091
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4091
ggattcacct ttagcagcta tgcc 24

<210> 4092
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4092
Gly Phe Thr Phe Ser Ser Tyr Ala
1 5

<210> 4093
<211> 24
<212> DNA
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<220>
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<400> 4093
attagtggta gtggtcataa caca 24

<210> 4094
<211> 8
<212> PRT
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<220>
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<400> 4094
Ile Ser Gly Ser Gly His Asn Thr
1 5

<210> 4095
<211> 39
<212> DNA

<213> Artificial Sequence

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<400> 4095
gcgaaattgg gcatagtggg agatactccc tttgactac 39

<210> 4096
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<212> PRT
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<220>
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<400> 4096
Ala Lys Leu Gly Ile Val Gly Asp Thr Pro Phe Asp Tyr
 1   5   10

<210> 4097
<211> 324
<212> DNA
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<220>
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<400> 4097
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atcacttgcc gggcaagtca gagcatgagc agctatttac attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatcccgtt tgcaaagtgg ggtcccatcc 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agtttcagta cccctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 4098
<211> 108
<212> PRT
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<220>
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<400> 4098
Asp Ile Leu 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 Ser Met Ser Ser Tyr
            20   25   30
Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45

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

<210> 4099
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4099
cagagcatga gcagctat 18

<210> 4100
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4100
Gln Ser Met Ser Ser Tyr
1 5

<210> 4101
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4101
gctgcatcc 9

<210> 4102
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4102
Ala Ala Ser
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<210> 4103
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4103
caacagagtt tcagtacccc tccgacg 27

<210> 4104
<211> 9
<212> PRT
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<220>
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<400> 4104
Gln Gln Ser Phe Ser Thr Pro Pro Thr
 1 5

<210> 4105
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4105
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggGTC cctgagactc 60
tcctgtacag cctctggatt catctttagc agctatgcca taacctgggt ccgccaggct 120
ccagggacgg ggctggagtg ggtctcagct ataagtggta ctggtcagaa cacatactat 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cattctgtat 240
ctccaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaattgggc 300
atagtgggag atactccctt tgactactgg ggccagggaa ccacggtcac cgtctcctca 360

<210> 4106
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4106
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 Thr Ala Ser Gly Phe Ile Phe Ser Ser Tyr
            20   25   30
Ala Ile Thr Trp Val Arg Gln Ala Pro Gly Thr Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Ser Gly Thr Gly Gln Asn Thr Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Ile 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 Gly Ile Val Gly Asp Thr Pro Phe Asp Tyr Trp Gly Gln
            100   105   110
Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 4107
<211> 24
<212> DNA
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<220>
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<400> 4107
ggattcatct ttagcagcta tgcc   24

<210> 4108
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4108
Gly Phe Ile Phe Ser Ser Tyr Ala
 1   5

<210> 4109
<211> 24
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<213> Artificial Sequence

<220>

<223> synthetic

<400> 4109
ataagtggta ctggtcagaa caca 24

<210> 4110
<211> 8
<212> PRT
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<220>
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<400> 4110
Ile Ser Gly Thr Gly Gln Asn Thr
1 5

<210> 4111
<211> 39
<212> DNA
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<220>
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<400> 4111
gcgaaattgg gcatagtggg agatactccc tttgactac 39

<210> 4112
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4112
Ala Lys Leu Gly Ile Val Gly Asp Thr Pro Phe Asp Tyr
1 5 10

<210> 4113
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4113
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atcacttgcc gggcaagtca gagcatgagc agctatttac attggtatca gcagagacca 120
gggaaagccc ctaagctcct gatctattct gcatccagtt tgcagagtgg ggtcccatcc 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaggattttg caacttacta ctgtcaacag agttacagta cccctccgac gttcggccag 300
gggaccaagg tggagatcaa acga 324

<210> 4114
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4114
Asp Ile Leu 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 Ser Met Ser Ser Tyr
            20   25   30
Leu His Trp Tyr Gln Gln Arg Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ser Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4115
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4115
cagagcatga gcagctat 18

<210> 4116
<211> 6
<212> PRT
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<220>
<223> synthetic

<400> 4116
Gln Ser Met Ser Ser Tyr

1 5

<210> 4117
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4117
tctgcatcc 9

<210> 4118
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4118
Ser Ala Ser
1

<210> 4119
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4119
caacagagtt acagtacccc tccgacg 27

<210> 4120
<211> 9
<212> PRT
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<220>
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<400> 4120
Gln Gln Ser Tyr Ser Thr Pro Pro Thr
1 5

<210> 4121

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

<220>
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<400> 4121
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acctgcacta tctctggtgg ctccatcagt agttactact ggagctggat ccggctgccc 120
ccagggaagg gactggagtg gattgggtat atctattaca gtgggaacac caactacaac 180
ccctccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aaactgagct ctgtgaccgc cgcagacacg gccgtgtatt actgtgcgag agggaaagca 300
gcagctgact actactacta cggtatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 4122
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4122
Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Ile Ser Gly Gly Ser Ile Ser Ser Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Leu Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Tyr Ser Gly Asn Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Lys Ala Ala Ala Asp Tyr Tyr Tyr Tyr Gly Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 4123
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4123

ggtggctcca tcagtagtta ctac 24

<210> 4124
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4124
Gly Gly Ser Ile Ser Ser Tyr Tyr
1 5

<210> 4125
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4125
atctattaca gtgggaacac c 21

<210> 4126
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4126
Ile Tyr Tyr Ser Gly Asn Thr
1 5

<210> 4127
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4127
gcgagaggga aagcagcagc tgactactac tactacggta tggacgtc 48

<210> 4128
<211> 16

<212> PRT
<213> Artificial Sequence

<220>
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<400> 4128
Ala Arg Gly Lys Ala Ala Ala Asp Tyr Tyr Tyr Tyr Gly Met Asp Val
 1   5   10   15

<210> 4129
<211> 342
<212> DNA
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<220>
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<400> 4129
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atcaactgca agtccagcca gagtgttttt tacagttcca acaataagaa ctacttagct 120
tggtaccagc agaaaccagg acagactcct aagctactca tttactgggc atctacccgg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttataatact 300
ccgtggacgt tcggccaagg gaccaaggtg gagatcaaac ga   342

<210> 4130
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4130
Asp Ile Leu Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Phe Tyr Ser
            20   25   30
Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Thr Pro Lys Leu Leu Ile Tyr 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 Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Asn Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys Arg

<210> 4131
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4131
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<210> 4132
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<220>
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<400> 4132
Gln Ser Val Phe Tyr Ser Ser Asn Asn Lys Asn Tyr
1 5 10

<210> 4133
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<220>
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<400> 4133
tgggcatct 9

<210> 4134
<211> 3
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<220>
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<400> 4134
Trp Ala Ser
1

<210> 4135
<211> 27

<212> DNA
<213> Artificial Sequence

<220>
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<400> 4135
cagcaatatt ataatactcc gtggacg 27

<210> 4136
<211> 9
<212> PRT
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<220>
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<400> 4136
Gln Gln Tyr Tyr Asn Thr Pro Trp Thr
1 5

<210> 4137
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4137
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggagggtc cctgagactc 60
tcctgtgcat cctctggatt caccctcagt agttatgaag tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtttcatac attagtagaa gtagtaccac catatattac 180
gcagactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctcactgtat 240
ctgcaaatga acagcctgag agtcgaggac acggctgttt attactgtgc gagagatcga 300
ggctacgtct ccgggggtgg tatggacgtc tggggccaag ggaccacggt caccgtctcc 360
tca 363

<210> 4138
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4138
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 Ser Ser Gly Phe Thr Leu Ser Ser Tyr
20 25 30

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

<210> 4139
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4139
ggattcaccc tcagtagtta tgaa 24

<210> 4140
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4140
Gly Phe Thr Leu Ser Ser Tyr Glu
 1   5

<210> 4141
<211> 24
<212> DNA
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<220>
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<400> 4141
attagtagaa gtagtaccac cata 24

<210> 4142
<211> 8
<212> PRT

<213> Artificial Sequence

<220>
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<400> 4142
Ile Ser Arg Ser Ser Thr Thr Ile
 1   5

<210> 4143
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4143
gcgagagatc gaggctacgt ctccgggggt ggtatggacg tc   42

<210> 4144
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4144
Ala Arg Asp Arg Gly Tyr Val Ser Gly Gly Gly Met Asp Val
 1   5   10

<210> 4145
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4145
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atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagatcct gatctttgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcaccag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag acttacaata ccccccttcac tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 4146
<211> 108

<212> PRT
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<220>
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<400> 4146
Asp Ile Leu 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 Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Ile Leu Ile
        35   40   45
Phe Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Thr Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Thr Tyr Asn Thr Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4147
<211> 18
<212> DNA
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<220>
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<400> 4147
cagagcatta gcagctat   18

<210> 4148
<211> 6
<212> PRT
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<220>
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<400> 4148
Gln Ser Ile Ser Ser Tyr
 1   5

<210> 4149
<211> 9
<212> DNA
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<220>
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<400> 4149
gctgcatcc 9

<210> 4150
<211> 3
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<220>
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<400> 4150
Ala Ala Ser
1

<210> 4151
<211> 27
<212> DNA
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<220>
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<400> 4151
caacagactt acaatacccc cttcact 27

<210> 4152
<211> 9
<212> PRT
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<220>
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<400> 4152
Gln Gln Thr Tyr Asn Thr Pro Phe Thr
1 5

<210> 4153
<211> 360
<212> DNA
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<220>
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<400> 4153

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tcctgttcag cctctggatt cacctttagt ggctattgga tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtgggcaac ataaaacaag atggaagtga gaaatactat 180
gtggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctcactgtat 240
ctgcaaatga acagcctgag agtcgaggac acggctattt attactgtgc gagagatcat 300
atagtgggag ctccttactt tgactactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 4154
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4154
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Thr Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ser Ala Ser Gly Phe Thr Phe Ser Gly Tyr
            20   25   30
Trp Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Gly Asn Ile Lys Gln Asp Gly Ser Glu Lys Tyr Tyr Val 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 Val Glu Asp Thr Ala Ile Tyr Tyr Cys
                85   90   95
Ala Arg Asp His Ile Val Gly Ala Pro Tyr Phe Asp Tyr Trp Gly Gln
            100   105   110
Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 4155
<211> 24
<212> DNA
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<220>
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<400> 4155
ggattcacct ttagtggcta ttgg 24

<210> 4156
<211> 8
<212> PRT
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<220>

<223> synthetic

<400> 4156
Gly Phe Thr Phe Ser Gly Tyr Trp
 1   5

<210> 4157
<211> 24
<212> DNA
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<220>
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<400> 4157
ataaaacaag atggaagtga gaaa   24

<210> 4158
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4158
Ile Lys Gln Asp Gly Ser Glu Lys
 1   5

<210> 4159
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4159
gcgagagatc atatagtggg agctccttac tttgactac   39

<210> 4160
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4160
Ala Arg Asp His Ile Val Gly Ala Pro Tyr Phe Asp Tyr

 1   5   10

<210> 4161
<211> 330
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4161
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atcacttgcc gggcaagtca gagtattagc tactatttaa attggtatca gcagaaacca 120
ggaaaagccc ctaaactcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
ggagattttg caacttacta ctgtcagcag agttacagta tccctccgga ctacactttt 300
ggccagggga ccaaggtgga gatcaaacga   330

<210> 4162
<211> 110
<212> PRT
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<220>
<223> synthetic

<400> 4162
Asp Ile Leu Met Thr Gln Ser Pro Thr Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Tyr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Gly Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ile Pro Pro
                85   90   95
Asp Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105   110

<210> 4163
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4163
cagagtatta gctactat 18

<210> 4164
<211> 6
<212> PRT
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<220>
<223> synthetic

<400> 4164
Gln Ser Ile Ser Tyr Tyr
1 5

<210> 4165
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4165
gctgcatcc 9

<210> 4166
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4166
Ala Ala Ser
1

<210> 4167
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4167
cagcagagtt acagtatccc tccggactac act 33

<210> 4168

<211> 11
<212> PRT
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<220>
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<400> 4168
Gln Gln Ser Tyr Ser Ile Pro Pro Asp Tyr Thr
 1   5   10

<210> 4169
<211> 381
<212> DNA
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<220>
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<400> 4169
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cttgagactc 60
tcctgtgcag cctctggatt caccttggat gattatggca tgcattgggt ccggcaagct 120
ccagggaagg gcctggaatg ggtctcaggt attagttgga atagtggtag tttagactat 180
gcggactctg tgaaggggcg attcaccatc tccagagaca acgccaagaa ctccctgttt 240
ctgcaaatga acagtctgag acctgaggac acggccttgt atttctgtgt aaaagataga 300
gcagtgacta cggaagaaga tttccactat ctcttcggta tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a   381

<210> 4170
<211> 127
<212> PRT
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<220>
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<400> 4170
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp Asp Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Leu Asp 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 Pro Glu Asp Thr Ala Leu Tyr Phe Cys
                85   90   95
Val Lys Asp Arg Ala Val Thr Thr Glu Glu Asp Phe His Tyr Leu Phe
            100   105   110

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

<210> 4171
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4171
ggattcacct tggatgatta tggc 24

<210> 4172
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4172
Gly Phe Thr Leu Asp Asp Tyr Gly
1 5

<210> 4173
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4173
attagttgga atagtggtag ttta 24

<210> 4174
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4174
Ile Ser Trp Asn Ser Gly Ser Leu
1 5

<210> 4175
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4175
gtaaaagata gagcagtgac tacggaagaa gatttccact atctcttcgg tatggacgtc 60

<210> 4176
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4176
Val Lys Asp Arg Ala Val Thr Thr Glu Glu Asp Phe His Tyr Leu Phe
 1   5   10   15
Gly Met Asp Val
            20

<210> 4177
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4177
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgttggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattaac tggtatttaa attggtatca acagaaacca 120
gggaaagccc ctaaactcct gatctatact gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcagcag agtttcagta cccctctcac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 4178
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4178

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Asp Ile Leu 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 Ser Ile Asn Trp Tyr
            20                  25                  30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Thr Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Phe Ser Thr Pro Leu
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 4179
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4179
cagagcatta actggtat 18

<210> 4180
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4180
Gln Ser Ile Asn Trp Tyr
 1   5

<210> 4181
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4181
actgcatcc 9

<210> 4182

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

<220>
<223> synthetic

<400> 4182
Thr Ala Ser
 1

<210> 4183
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4183
cagcagagtt tcagtacccc tctcact 27

<210> 4184
<211> 9
<212> PRT
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<220>
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<400> 4184
Gln Gln Ser Phe Ser Thr Pro Leu Thr
 1 5

<210> 4185
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4185
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tcctgtgcag cctctggatt caccttcagt agttatgaaa tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtttcatac ataagtagta gtggtagtaa catatactac 180
gcagactctg tgaagggccg atttaccatc tccagagaca acgccaagaa ctcattgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgttt attactgtgc gagagatcgg 300
gagggagcta cgggggactg gttcgacccc tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 4186
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4186
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
Glu Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Tyr Ile Ser Ser Ser Gly Ser Asn 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 Arg Glu Gly Ala Thr Gly Asp Trp Phe Asp Pro Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 4187
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4187
ggattcacct tcagtagtta tgaa   24

<210> 4188
<211> 8
<212> PRT
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<220>
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<400> 4188
Gly Phe Thr Phe Ser Ser Tyr Glu
 1   5

<210> 4189
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4189
ataagtagta gtggtagtaa cata 24

<210> 4190
<211> 8
<212> PRT
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<220>
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<400> 4190
Ile Ser Ser Ser Gly Ser Asn Ile
1 5

<210> 4191
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4191
gcgagagatc gggagggagc tacgggggac tggttcgacc cc 42

<210> 4192
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4192
Ala Arg Asp Arg Glu Gly Ala Thr Gly Asp Trp Phe Asp Pro
1 5 10

<210> 4193
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4193
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atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatatta ctgtcaaaag tatgataatc tcccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 4194
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4194
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 Ser 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 Ile Ala Thr Tyr Tyr Cys Gln Lys Tyr Asp Asn Leu Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4195
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4195
caggacatta gcaactat 18

<210> 4196
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4196
Gln Asp Ile Ser Asn Tyr
 1   5

<210> 4197
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4197
gatgcatcc   9

<210> 4198
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4198
Asp Ala Ser
 1

<210> 4199
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4199
caaaagtatg ataatctccc gtacact   27

<210> 4200
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4200
Gln Lys Tyr Asp Asn Leu Pro Tyr Thr
 1   5

<210> 4201
<211> 381
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4201
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ccagggaagg gcctggaatg ggtctcaggt attagttgga atagtggtag tttagactat 180
gcggactctg tgaaggggcg attcaccatc tccagagaca acgccaagaa ctccctgttt 240
ctgcaaatga acagtctgag acctgaggac acggccttgt atttctgtgt aaaagataga 300
gcagtgacta cggaagaaga tttccactat ctcttcggta tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a   381

<210> 4202
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4202
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp Asp Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Leu Asp 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 Pro Glu Asp Thr Ala Leu Tyr Phe Cys
                85   90   95
Val Lys Asp Arg Ala Val Thr Thr Glu Glu Asp Phe His Tyr Leu Phe
            100   105   110
Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 4203
<211> 24
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 4203
ggattcacct tggatgatta tggc 24

<210> 4204
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4204
Gly Phe Thr Leu Asp Asp Tyr Gly
 1 5

<210> 4205
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4205
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<210> 4206
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<400> 4206
Ile Ser Trp Asn Ser Gly Ser Leu
 1 5

<210> 4207
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<220>
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<210> 4208
<211> 20
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<213> Artificial Sequence

<220>
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<400> 4208
Val Lys Asp Arg Ala Val Thr Thr Glu Glu Asp Phe His Tyr Leu Phe
 1   5   10   15
Gly Met Asp Val
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<210> 4209
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4209
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atcacttgcc gggcaagtca gagcattaac tggtatttaa attggtatca acagaaacca 120
gggaaagccc ctaaactcct gatctatact gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcagcag agtttcagta cccctctcac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 4210
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4210
Asp Ile Leu 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 Ser Ile Asn Trp Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Thr Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly

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

<210> 4211
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4211
cagagcatta actggtat 18

<210> 4212
<211> 6
<212> PRT
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<220>
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<400> 4212
Gln Ser Ile Asn Trp Tyr
1 5

<210> 4213
<211> 9
<212> DNA
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<220>
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<400> 4213
actgcatcc 9

<210> 4214
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4214
Thr Ala Ser
 1

<210> 4215
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4215
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<210> 4216
<211> 9
<212> PRT
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<220>
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<400> 4216
Gln Gln Ser Phe Ser Thr Pro Leu Thr
 1 5

<210> 4217
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
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tcctgtgcag cctctggatt cacctttagc agctatgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtggtag cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgacgac acggccgtat attactgtgc gaagatagca 300
gtgactggta cgtccccctt tgactactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 4218
<211> 120
<212> PRT
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<220>

<223> synthetic

<400> 4218
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Phe 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 Ser Gly Gly 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 Asp Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Ile Ala Val Thr Gly Thr Ser Pro Phe Asp Tyr Trp Gly Gln
            100   105   110
Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 4219
<211> 24
<212> DNA
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<220>
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<400> 4219
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<210> 4220
<211> 8
<212> PRT
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<220>
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<400> 4220
Gly Phe Thr Phe Ser Ser Tyr Ala
 1   5

<210> 4221
<211> 24
<212> DNA
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<220>
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<400> 4221
attagtggta gtggtggtag caca 24

<210> 4222
<211> 8
<212> PRT
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<220>
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<400> 4222
Ile Ser Gly Ser Gly Gly Ser Thr
1 5

<210> 4223
<211> 39
<212> DNA
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<220>
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<400> 4223
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<210> 4224
<211> 13
<212> PRT
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<220>
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<400> 4224
Ala Lys Ile Ala Val Thr Gly Thr Ser Pro Phe Asp Tyr
1 5 10

<210> 4225
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4225
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atcacttgcc gggcaagtca gagcattagc tcctatttaa actggtatca gaagaaacca 120

gggaaagccc ctaaactcct gatctatgct gcatccagtt tgcaacgtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacaaat ttcactctca ccatcagcag tctgcaacct 240
gaatattttg caacttacta ctgtcaacag acttacacta cccctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 4226
<211> 108
<212> PRT
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<220>
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<400> 4226
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ser Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Lys Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Arg Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asn Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Tyr Phe Ala Thr Tyr Tyr Cys Gln Gln Thr Tyr Thr Thr Pro Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4227
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4227
cagagcatta gctcctat 18

<210> 4228
<211> 6
<212> PRT
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<220>
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<400> 4228
Gln Ser Ile Ser Ser Tyr
 1   5

<210> 4229
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4229
gctgcatcc 9

<210> 4230
<211> 3
<212> PRT
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<220>
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<400> 4230
Ala Ala Ser
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<210> 4231
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4231
caacagactt acactacccc tccgacg 27

<210> 4232
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 4232
Gln Gln Thr Tyr Thr Thr Pro Pro Thr
 1 5

<210> 4233
<211> 381

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4233
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tcctgtgcag cctctggatt cacctttgat gattatgaca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag cttaggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaataa ctccctgtat 240
ctgcaaatga acagtctgag acctgaggac acggccctgt attactgtgc gaaacataga 300
acagtaacta cggaagagat tttctactac tactttggta tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a 381

<210> 4234
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4234
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 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Asp Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Leu Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Asn Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys His Arg Thr Val Thr Thr Glu Glu Ile Phe Tyr Tyr Tyr Phe
            100   105   110
Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 4235
<211> 24
<212> DNA
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<220>
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<400> 4235
ggattcacct ttgatgatta tgac 24

<210> 4236
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4236
Gly Phe Thr Phe Asp Asp Tyr Asp
 1   5

<210> 4237
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4237
attagttgga atagtggtag ctta   24

<210> 4238
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4238
Ile Ser Trp Asn Ser Gly Ser Leu
 1   5

<210> 4239
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4239
gcgaaacata gaacagtaac tacggaagag attttctact actactttgg tatggacgtc 60

<210> 4240
<211> 20

<212> PRT
<213> Artificial Sequence

<220>
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<400> 4240
Ala Lys His Arg Thr Val Thr Thr Glu Glu Ile Phe Tyr Tyr Tyr Phe
 1   5   10   15
Gly Met Asp Val
            20

<210> 4241
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4241
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
ttcacttgcc gggcaagtca gagcattggc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctattct gcatccagtt tgcaaagtgg ggtcccatca 180
agattcagtg gcagtggatc tgggacagat ttcagtctca ccatcagcag tctgcagcct 240
gaagattttg caacttacta ctgtcaacag agtttcaatg tccctcccac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 4242
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4242
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Phe Thr Cys Arg Ala Ser Gln Ser Ile Gly 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 Ser Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Ser Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Phe Asn Val Pro Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4243
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4243
cagagcattg gcaactat 18

<210> 4244
<211> 6
<212> PRT
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<220>
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<400> 4244
Gln Ser Ile Gly Asn Tyr
1 5

<210> 4245
<211> 9
<212> DNA
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<220>
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<400> 4245
tctgcatcc 9

<210> 4246
<211> 3
<212> PRT
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<220>
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<400> 4246
Ser Ala Ser
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<210> 4247
<211> 27

<212> DNA
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<220>
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<400> 4247
caacagagtt tcaatgtccc tcccact 27

<210> 4248
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4248
Gln Gln Ser Phe Asn Val Pro Pro Thr
1 5

<210> 4249
<211> 387
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4249
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tcctgtgcag cctctggatt cacctttgat gattatgacc tgatctgggt ccgccaagct 120
ccagggaagg ggctggagtg ggtctctggt attaattgga atggcgaaat cacaggttat 180
gcagactctg tgaagggccg attcaccata tccagagaca aagccaagaa ctccctgtat 240
ctgcaaatgc acagtctgag agccgaggat tcggccttgt atttttgtgc gagagaagga 300
tgtagtagta ccagctgctt tccatattac taccctact tcggtatgga cgtctggggc 360
caagggacca cggtcaccgt ctcctca 387

<210> 4250
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4250
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
20 25 30

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Asp Leu Ile Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Gly Ile Asn Trp Asn Gly Glu Ile Thr Gly Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Lys Ala Lys Asn Ser Leu Tyr
65                  70                  75                  80
Leu Gln Met His Ser Leu Arg Ala Glu Asp Ser Ala Leu Tyr Phe Cys
                85                  90                  95
Ala Arg Glu Gly Cys Ser Ser Thr Ser Cys Phe Pro Tyr Tyr Tyr Pro
            100                 105                 110
Tyr Phe Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115                 120                 125
Ser
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<210> 4251
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4251
ggattcacct ttgatgatta tgac 24

<210> 4252
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4252
Gly Phe Thr Phe Asp Asp Tyr Asp
 1   5

<210> 4253
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4253
attaattgga atggcgaaat caca 24

<210> 4254

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

<220>
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<400> 4254
Ile Asn Trp Asn Gly Glu Ile Thr
 1   5

<210> 4255
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4255
gcgagagaag gatgtagtag taccagctgc tttccatatt actaccccta cttcggtatg 60
gacgtc   66

<210> 4256
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4256
Ala Arg Glu Gly Cys Ser Ser Thr Ser Cys Phe Pro Tyr Tyr Tyr Pro
 1   5   10   15
Tyr Phe Gly Met Asp Val
            20

<210> 4257
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4257
gacatcgtga tgacccagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgta ggtctagtca gagcctcctg catagtaatg gagacaacta tttggattgg 120
tacctacaga agccagggca gtctccacaa ctcctgatct ttttgaattc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggatcaggta cagattttac actgaaaatc 240

aacacagtgg aggctgagga tgttgggatt tattactgca tgcaggctct acaaactccg 300
tggacgttcg gccaagggac caaggtggag atcaaacga 339

<210> 4258
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4258
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
            20   25   30
Asn Gly Asp Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Phe Leu Asn Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Asn Thr Val Glu Ala Glu Asp Val Gly Ile Tyr Tyr Cys Met Gln Ala
                85   90   95
Leu Gln Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110
Arg

<210> 4259
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4259
cagagcctcc tgcatagtaa tggagacaac tat 33

<210> 4260
<211> 11
<212> PRT
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<220>
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<400> 4260
Gln Ser Leu Leu His Ser Asn Gly Asp Asn Tyr
 1   5   10

<210> 4261
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4261
ttgaattct 9

<210> 4262
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4262
Leu Asn Ser
1

<210> 4263
<211> 27
<212> DNA
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<220>
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<400> 4263
atgcaggctc tacaaactcc gtggacg 27

<210> 4264
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 4264
Met Gln Ala Leu Gln Thr Pro Trp Thr
1 5

<210> 4265
<211> 360

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4265
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tcctgtgcag cctctggatt catctttagt acctattgga tgaactgggt ccgtcaggct 120
ccagggaagg ggctggagtg ggtggccaac ataaagcaag atggaagtga gaagtactat 180
gtggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctcactgtct 240
ctgcaaatga gtagcctgag agccgaggac acggctgttt attactgtgc gagagatcat 300
attgtgggag ctccttactt tgactactgg ggccagggaa ccctggtcac cgtctcctca 360

<210> 4266
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4266
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Glu
 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 Ile Lys Gln Asp Gly Ser Glu Lys Tyr Tyr Val Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Ser
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 His Ile Val Gly Ala Pro Tyr Phe Asp Tyr Trp Gly Gln
            100   105   110
Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 4267
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4267
ggattcatct ttagtaccta ttgg 24

<210> 4268
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4268
Gly Phe Ile Phe Ser Thr Tyr Trp
 1   5

<210> 4269
<211> 24
<212> DNA
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<220>
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<400> 4269
ataaagcaag atggaagtga gaag   24

<210> 4270
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4270
Ile Lys Gln Asp Gly Ser Glu Lys
 1   5

<210> 4271
<211> 39
<212> DNA
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<220>
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<400> 4271
gcgagagatc atattgtggg agctccttac tttgactac   39

<210> 4272
<211> 13
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 4272
Ala Arg Asp His Ile Val Gly Ala Pro Tyr Phe Asp Tyr
 1   5   10

<210> 4273
<211> 330
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4273
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagt tactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg taatttacta ctgtcaacag agttacagta tccctccgga gtacactttt 300
ggccagggga ccaaggtgga gatcaaacga   330

<210> 4274
<211> 110
<212> PRT
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<220>
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<400> 4274
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 Ser Ile Ser Tyr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Val Ile Tyr Tyr Cys Gln Gln Ser Tyr Ser Ile Pro Pro
                85   90   95
Glu Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105   110

<210> 4275

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

<220>
<223> synthetic

<400> 4275
cagagcatta gttactat 18

<210> 4276
<211> 6
<212> PRT
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<220>
<223> synthetic

<400> 4276
Gln Ser Ile Ser Tyr Tyr
1 5

<210> 4277
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4277
ggtgcatcc 9

<210> 4278
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4278
Gly Ala Ser
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<210> 4279
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<400> 4280
Gln Gln Ser Tyr Ser Ile Pro Pro Glu Tyr Thr
1 5 10

<210> 4281
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acctgcacta tctctggtgg ctccatcagt acttactact ggaactggat ccggcagccc 120
ccagggaagg gactggaatg gattgggcat atcttttata gtgggaccac caactacaac 180
ccctccctca ggagtcgagt caccatatca gtagacacgt ccaagaatca gttatccctg 240
aagctgagct ctgtgaccgc tgcggacacg gccttttatt cctgtgcgag agagaggggc 300
ggggtaaccg acggtgacta cggcgggttc gacccctggg gccagggaac cctggtcacc 360
gtctcctca 369

<210> 4282
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<400> 4282
Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15
Thr Leu Ser Leu Thr Cys Thr Ile Ser Gly Gly Ser Ile Ser Thr Tyr
20 25 30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45
Gly His Ile Phe Tyr Ser Gly Thr Thr Asn Tyr Asn Pro Ser Leu Arg

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    50                  55                  60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Leu Ser Leu
65                  70                  75                  80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Phe Tyr Ser Cys Ala
                85                  90                  95
Arg Glu Arg Gly Gly Val Thr Asp Gly Asp Tyr Gly Gly Phe Asp Pro
            100                 105                 110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<400> 4283
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<210> 4284
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<400> 4284
Gly Gly Ser Ile Ser Thr Tyr Tyr
 1   5

<210> 4285
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<400> 4285
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<210> 4286
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<212> PRT
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<223> synthetic

<400> 4286
Ile Phe Tyr Ser Gly Thr Thr
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<210> 4287
<211> 51
<212> DNA
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<400> 4287
gcgagagaga ggggcggggt aaccgacggt gactacggcg ggttcgaccc c   51

<210> 4288
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<400> 4288
Ala Arg Glu Arg Gly Gly Val Thr Asp Gly Asp Tyr Gly Gly Phe Asp
 1   5   10   15
Pro

<210> 4289
<211> 324
<212> DNA
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<220>
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<400> 4289
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gggaaagccc ctaacctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagtg cccctcggac gttcggccaa 300
gggaccaagg tggagatcaa acga   324

<210> 4290
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<400> 4290
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Ser Ile Thr Cys Arg Ala Ser Gln Ile Ile Ser Thr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ala Pro Arg
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

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<220>
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<400> 4291
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<210> 4292
<211> 6
<212> PRT
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<220>
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<400> 4292
Gln Ile Ile Ser Thr Tyr
 1   5

<210> 4293
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<212> DNA
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<400> 4293
gctgcatcc 9

<210> 4294
<211> 3
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<400> 4294
Ala Ala Ser
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<210> 4295
<211> 27
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<400> 4295
caacagagtt acagtgcccc tcggacg 27

<210> 4296
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<400> 4296
Gln Gln Ser Tyr Ser Ala Pro Arg Thr
 1   5

<210> 4297
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<400> 4297
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acctgcactg tctctggtgg ctccatcagt acttactact ggaactggat ccggcagtcc 120
ccagggaagg gactggagtg gattgggaat atcaattaca gtgggagtac caactacaac 180
ccctccctca agagtcgagt caccatatca gtagacacgt ccaggaacca gttctccctg 240
aagttgagtt ttgtgaccgc tgcggacacg gccgtgtttt tctgtgcgag agagaggggc 300
gggtttaccg acactgacta cggcggattc gacccctggg gccagggaac cctggtcacc 360
gtctcctca 369

<210> 4298
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<220>
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Glu Val Gln Leu Val 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 Thr Tyr
            20   25   30
Tyr Trp Asn Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Asn Ile Asn Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Arg Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Phe Val Thr Ala Ala Asp Thr Ala Val Phe Phe Cys Ala
                85   90   95
Arg Glu Arg Gly Gly Phe Thr Asp Thr Asp Tyr Gly Gly Phe Asp Pro
            100   105   110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 4299
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<212> DNA
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<400> 4299
ggtggctcca tcagtactta ctac 24

<210> 4300
<211> 8
<212> PRT
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<220>
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Gly Gly Ser Ile Ser Thr Tyr Tyr
 1   5

<210> 4301
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<212> DNA
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<220>
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<400> 4301
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<210> 4302
<211> 7
<212> PRT
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<400> 4302
Ile Asn Tyr Ser Gly Ser Thr
 1   5

<210> 4303
<211> 51
<212> DNA
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<400> 4303
gcgagagaga ggggcgggtt taccgacact gactacggcg gattcgaccc c   51

<210> 4304
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<220>
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<400> 4304
Ala Arg Glu Arg Gly Gly Phe Thr Asp Thr Asp Tyr Gly Gly Phe Asp
 1   5   10   15

Pro

<210> 4305
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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atcacttgcc gggcaagtca gagcattagt agttatttaa attggtatca gcagaaacca 120
gggaaagccc ctaacctcct gatctatgct gcatccaatt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta cccctcggac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 4306
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<212> PRT
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<220>
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<400> 4306
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Ser Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Arg
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

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<400> 4307
cagagcatta gtagttat 18

<210> 4308
<211> 6
<212> PRT
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<220>
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<400> 4308
Gln Ser Ile Ser Ser Tyr
1 5

<210> 4309
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4309
gctgcatcc 9

<210> 4310
<211> 3
<212> PRT
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<220>
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<400> 4310
Ala Ala Ser
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<210> 4311
<211> 27
<212> DNA
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<400> 4311
caacagagtt acagtacccc tcggacg 27

<210> 4312
<211> 9
<212> PRT
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<400> 4312
Gln Gln Ser Tyr Ser Thr Pro Arg Thr
 1   5

<210> 4313
<211> 387
<212> DNA
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ccagggaagg ggctggaatg ggtctctggt attaattgga atggtgatat cacaggttat 180
gcagactctg tgaggggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agccgaggac acggccttat atcactgtgc gagagaggga 300
tgtagtagta ccagctgctt tccatattac tatccctact tcggtttgga cgtctggggc 360
caagggacca cggtcaccgt ctcctca   387

<210> 4314
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4314
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ala Asp Tyr
            20   25   30
Asp Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Asn Trp Asn Gly Asp Ile Thr Gly Tyr Ala Asp Ser Val
    50   55   60
Arg Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr His Cys
                85   90   95
Ala Arg Glu Gly Cys Ser Ser Thr Ser Cys Phe Pro Tyr Tyr Tyr Pro

100 105 110
Tyr Phe Gly Leu Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 4315
<211> 24
<212> DNA
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<220>
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<400> 4315
ggattcacct ttgctgatta tgac 24

<210> 4316
<211> 8
<212> PRT
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<220>
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<400> 4316
Gly Phe Thr Phe Ala Asp Tyr Asp
1 5

<210> 4317
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4317
attaattgga atggtgatat caca 24

<210> 4318
<211> 8
<212> PRT
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<220>
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<400> 4318
Ile Asn Trp Asn Gly Asp Ile Thr

 1   5

<210> 4319
<211> 66
<212> DNA
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<220>
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<400> 4319
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gacgtc   66

<210> 4320
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4320
Ala Arg Glu Gly Cys Ser Ser Thr Ser Cys Phe Pro Tyr Tyr Tyr Pro
 1   5   10   15
Tyr Phe Gly Leu Asp Val
            20

<210> 4321
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4321
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atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ccccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 4322
<211> 108
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 4322

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

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<211> 18
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<213> Artificial Sequence

<220>
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<400> 4323
cagagcatta gcagctat 18

<210> 4324
<211> 6
<212> PRT
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<220>
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<400> 4324

Gln	Ser	Ile	Ser	Ser	Tyr
1			5		

<210> 4325
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<220>
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<400> 4325

gctgcatcc 9

<210> 4326
<211> 3
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<220>
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<400> 4326
Ala Ala Ser
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<210> 4327
<211> 27
<212> DNA
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<220>
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<400> 4327
caacagagtt acagtacccc gctcact 27

<210> 4328
<211> 9
<212> PRT
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<220>
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<400> 4328
Gln Gln Ser Tyr Ser Thr Pro Leu Thr
 1   5

<210> 4329
<211> 363
<212> DNA
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<400> 4329
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tcctgtgcag cctctggatt cacctttagc acctatgcca taacctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtggtaa cacatactac 180
gcagacttcg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240

ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gactctggat 300
atagtggcta cgtcccatgc ttttgatatc tggggccaag ggacaatggt caccgtctct 360
tca 363

<210> 4330
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4330
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 Ile Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35 40 45
Ser Ala Ile Ser Gly Ser Gly Gly Asn Thr Tyr Tyr Ala Asp Phe 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 Thr Leu Asp Ile Val Ala Thr Ser His Ala Phe Asp Ile Trp Gly
            100 105 110
Gln Gly Thr Met Val Thr Val Ser Ser
        115 120

<210> 4331
<211> 24
<212> DNA
<213> Artificial Sequence

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<400> 4331
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<210> 4332
<211> 8
<212> PRT
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<220>
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<400> 4332
Gly Phe Thr Phe Ser Thr Tyr Ala

1 5

<210> 4333
<211> 24
<212> DNA
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<220>
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<400> 4333
attagtggta gtggtggtaa caca 24

<210> 4334
<211> 8
<212> PRT
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<220>
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<400> 4334
Ile Ser Gly Ser Gly Gly Asn Thr
1 5

<210> 4335
<211> 42
<212> DNA
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<400> 4335
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<210> 4336
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<212> PRT
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<220>
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<400> 4336
Ala Thr Leu Asp Ile Val Ala Thr Ser His Ala Phe Asp Ile
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<210> 4337

<211> 324
<212> DNA
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<220>
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gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcaatggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta cccctcccac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 4338
<211> 108
<212> PRT
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<220>
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<400> 4338
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 Ser Ile Ser Thr Tyr
            20   25   30
Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Asn 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 Ser Tyr Ser Thr Pro Pro
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

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<400> 4339
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<210> 4340

<211> 6
<212> PRT
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<220>
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<400> 4340
Gln Ser Ile Ser Thr Tyr
 1   5

<210> 4341
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<212> DNA
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<400> 4341
gctgcatcc   9

<210> 4342
<211> 3
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<400> 4342
Ala Ala Ser
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<210> 4343
<211> 27
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<400> 4343
caacagagtt acagtacccc tcccact   27

<210> 4344
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<400> 4344
Gln Gln Ser Tyr Ser Thr Pro Pro Thr
 1   5

<210> 4345
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tcctgtgcag cctctggatt caccttggat gattatggca tgcattgggt ccggcaagct 120
ccagggaagg gcctggaatg ggtctcaggt attagttgga atagtggtag tttagactat 180
gcggactctg tgaaggggcg attcaccatc tccagagaca acgccaagaa ctccctgttt 240
ctgcaaatga acagtctgag acctgaggac acggccttgt atttctgtgt aaaagataga 300
gcagtgacta cggaagaaga tttccactat ctcttcggta tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a   381

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<400> 4346
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Asp Asp Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Leu Asp 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 Pro Glu Asp Thr Ala Leu Tyr Phe Cys
                85   90   95
Val Lys Asp Arg Ala Val Thr Thr Glu Glu Asp Phe His Tyr Leu Phe
            100   105   110
Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 4347
<211> 24
<212> DNA
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<220>
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<400> 4347
ggattcacct tggatgatta tggc 24

<210> 4348
<211> 8
<212> PRT
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<220>
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<400> 4348
Gly Phe Thr Leu Asp Asp Tyr Gly
1 5

<210> 4349
<211> 24
<212> DNA
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<220>
<223> synthetic

<400> 4349
attagttgga atagtggtag ttta 24

<210> 4350
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 4350
Ile Ser Trp Asn Ser Gly Ser Leu
1 5

<210> 4351
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4351
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<210> 4352
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4352
Val Lys Asp Arg Ala Val Thr Thr Glu Glu Asp Phe His Tyr Leu Phe
 1   5   10   15
Gly Met Asp Val
            20

<210> 4353
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4353
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgttggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattaac tggtatttaa attggtatca acagaaacca 120
gggaaagccc ctaaactcct gatctatact gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcagcag agtttcagta cccctctcac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 4354
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4354
Asp Ile Leu 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 Ser Ile Asn Trp Tyr
            20   25   30

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Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Thr Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Phe Ser Thr Pro Leu
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 4355
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<212> DNA
<213> Artificial Sequence

<220>
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<400> 4355
cagagcatta actggtat 18

<210> 4356
<211> 6
<212> PRT
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<220>
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<400> 4356
Gln Ser Ile Asn Trp Tyr
 1   5

<210> 4357
<211> 9
<212> DNA
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<220>
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<400> 4357
actgcatcc 9

<210> 4358
<211> 3
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<220>
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<400> 4358
Thr Ala Ser
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<210> 4359
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4359
cagcagagtt tcagtacccc tctcact 27

<210> 4360
<211> 9
<212> PRT
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<220>
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<400> 4360
Gln Gln Ser Phe Ser Thr Pro Leu Thr
 1   5

<210> 4361
<211> 381
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4361
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tcctgtgcag cctctggatt cacctttgat gaatatgaca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtaa cataggctat 180
gcggactctg tgaagggccg attcaccatg tccagagaca acgccaagaa ctccctgtat 240
ctggaaatga acagtctgag acctgaggac acggccttgt attactgtgc aaaacataga 300
gcaataacta cggaagagat tttctactac tactatggta tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a 381

<210> 4362
<211> 127
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 4362
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Glu Tyr
            20   25   30
Asp Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Asn Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Met Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Glu Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys His Arg Ala Ile Thr Thr Glu Glu Ile Phe 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

<210> 4363
<211> 24
<212> DNA
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<220>
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<400> 4363
ggattcacct ttgatgaata tgac   24

<210> 4364
<211> 8
<212> PRT
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<220>
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<400> 4364
Gly Phe Thr Phe Asp Glu Tyr Asp
 1   5

<210> 4365
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4365
attagttgga atagtggtaa cata 24

<210> 4366
<211> 8
<212> PRT
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<220>
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<400> 4366
Ile Ser Trp Asn Ser Gly Asn Ile
 1 5

<210> 4367
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4367
gcaaaacata gagcaataac tacggaagag attttctact actactatgg tatggacgtc 60

<210> 4368
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4368
Ala Lys His Arg Ala Ile Thr Thr Glu Glu Ile Phe Tyr Tyr Tyr Tyr
 1 5 10 15
Gly Met Asp Val
 20

<210> 4369
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4369
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
ttcacttgcc gggcaagtca gagcattagc agttatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcagcct 240
gaagattttg caacttacta ctgtcaacag agttacagta tccctcccac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 4370
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4370
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Phe Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ile Pro Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4371
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4371
cagagcatta gcagttat 18

<210> 4372
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4372
Gln Ser Ile Ser Ser Tyr
 1   5

<210> 4373
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4373
gctgcatcc 9

<210> 4374
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4374
Ala Ala Ser
 1

<210> 4375
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4375
caacagagtt acagtatccc tcccact 27

<210> 4376
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4376

Gln Gln Ser Tyr Ser Ile Pro Pro Thr
 1   5

<210> 4377
<211> 387
<212> DNA
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<220>
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<400> 4377
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tcctgtgcag cctctggatt cacctttggt gattatgacc tgaactgggt ccgccaagct 120
ccagggaagg ggctggagtg ggtctctggt attaattgga atggcgatat cacaggttat 180
gcagactctg tgaagggccg attcaccata tccagagaca tagccaagaa atccctgtat 240
ctgcaaatgc acagtctgag agccgaggat tcggccttgt atttttgtgc gagggaagga 300
tgtagtagta gcagctgctt tccatattac taccagtact tcggtatgga cgtctggggc 360
caagggacca cggtcaccgt ctcctca   387

<210> 4378
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4378
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Gly Asp Tyr
            20   25   30
Asp Leu Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Asn Trp Asn Gly Asp Ile Thr Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Ile Ala Lys Lys Ser Leu Tyr
65   70   75   80
Leu Gln Met His Ser Leu Arg Ala Glu Asp Ser Ala Leu Tyr Phe Cys
                85   90   95
Ala Arg Glu Gly Cys Ser Ser Ser Ser Cys Phe Pro Tyr Tyr Tyr Gln
            100   105   110
Tyr Phe Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 4379
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4379
ggattcacct ttggtgatta tgac 24

<210> 4380
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 4380
Gly Phe Thr Phe Gly Asp Tyr Asp
 1 5

<210> 4381
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4381
attaattgga atggcgatat caca 24

<210> 4382
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4382
Ile Asn Trp Asn Gly Asp Ile Thr
 1 5

<210> 4383
<211> 66
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 4383
gcgagggaag gatgtagtag tagcagctgc tttccatatt actaccagta cttcggtatg 60
gacgtc 66

<210> 4384
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4384
Ala Arg Glu Gly Cys Ser Ser Ser Ser Cys Phe Pro Tyr Tyr Tyr Gln
 1 5 10 15
Tyr Phe Gly Met Asp Val
            20

<210> 4385
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4385
gacatcgtga tgacccagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtca gagcctcctg catagtaatg gaaacaacta tttggattgg 120
tacctgcaga agccagggca gtctccacaa ctcctgatct ttttgaattc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcagagtgg aggctgagga tgttgggatt tattactgca tgcaggctct acaaactccg 300
tggacgttcg gccaagggac caaggtggag atcaaacga 339

<210> 4386
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4386
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
            20 25 30
Asn Gly Asn Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35 40 45

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

<210> 4387
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4387
cagagcctcc tgcatagtaa tggaaacaac tat 33

<210> 4388
<211> 11
<212> PRT
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<220>
<223> synthetic

<400> 4388
Gln Ser Leu Leu His Ser Asn Gly Asn Asn Tyr
1 5 10

<210> 4389
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4389
ttgaattct 9

<210> 4390
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4390
Leu Asn Ser
 1

<210> 4391
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4391
atgcaggctc tacaaactcc gtggacg 27

<210> 4392
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 4392
Met Gln Ala Leu Gln Thr Pro Trp Thr
 1 5

<210> 4393
<211> 369
<212> DNA
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<220>
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<400> 4393
caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt acttactact ggaactggat ccgacagccc 120
ccagggaagg gactggagtg gattggacat atcttttata gtgggaccac cagctacaac 180
ccctccctca agagtcgagt caccatatca gtagacacgt ccaggaatca gttctccctg 240
aagctgagct ctgtgaccgc tgcggacacg gccgtctatt cctgtgcgag agagaggggc 300
ggttttaccg acggtgacta cggcgggttc gacccctggg gccagggaat cctggtcacc 360
gtctcctca 369

<210> 4394
<211> 123
<212> PRT

<213> Artificial Sequence

<220>
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<400> 4394
Gln Val Gln Leu Val 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 Thr Tyr
            20   25   30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly His Ile Phe Tyr Ser Gly Thr Thr Ser Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Arg Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Ser Cys Ala
                85   90   95
Arg Glu Arg Gly Gly Phe Thr Asp Gly Asp Tyr Gly Gly Phe Asp Pro
            100   105   110
Trp Gly Gln Gly Ile Leu Val Thr Val Ser Ser
        115   120

<210> 4395
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4395
ggtggctcca tcagtactta ctac   24

<210> 4396
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 4396
Gly Gly Ser Ile Ser Thr Tyr Tyr
 1   5

<210> 4397
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4397
atcttttata gtgggaccac c 21

<210> 4398
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4398
Ile Phe Tyr Ser Gly Thr Thr
1 5

<210> 4399
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4399
gcgagagaga ggggcggttt taccgacggt gactacggcg ggttcgaccc c 51

<210> 4400
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4400
Ala Arg Glu Arg Gly Gly Phe Thr Asp Gly Asp Tyr Gly Gly Phe Asp
1 5 10 15
Pro

<210> 4401
<211> 324
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 4401
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctataggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc acctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tacaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcgctctca ccgtcaccag tcttcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta cccctcggac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 4402
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4402
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Thr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Ala Leu Thr Val Thr Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Arg
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4403
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4403
cagagcatta gcacctat 18

<210> 4404
<211> 6
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 4404
Gln Ser Ile Ser Thr Tyr
 1   5

<210> 4405
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4405
gctgcatcc   9

<210> 4406
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4406
Ala Ala Ser
 1

<210> 4407
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4407
caacagagtt acagtacccc tcggacg   27

<210> 4408
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4408
Gln Gln Ser Tyr Ser Thr Pro Arg Thr

 1   5

<210> 4409
<211> 381
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4409
caggtgcagc tggtggagtc tgggggaggt ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gaatatgaca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag cataggctat 180
gcggactctg tgaagggccg attcaccatg tccagagaca acgccaagaa ctccctgtat 240
ctggaaatga acagtctgag acctgaggac acggccttgt attactgtgc aaaacataga 300
gcaataacta cggaagagat tttctactac tactatggta tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a   381

<210> 4410
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4410
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Glu Tyr
            20   25   30
Asp Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Met Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Glu Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys His Arg Ala Ile Thr Thr Glu Glu Ile Phe 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

<210> 4411
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4411
ggattcacct ttgatgaata tgac 24

<210> 4412
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4412
Gly Phe Thr Phe Asp Glu Tyr Asp
1 5

<210> 4413
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4413
attagttgga atagtggtag cata 24

<210> 4414
<211> 8
<212> PRT
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<220>
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<400> 4414
Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 4415
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4415

gcaaaacata gagcaataac tacggaagag attttctact actactatgg tatggacgtc 60

<210> 4416
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4416
Ala Lys His Arg Ala Ile Thr Thr Glu Glu Ile Phe Tyr Tyr Tyr Tyr
 1   5   10   15
Gly Met Asp Val
            20

<210> 4417
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4417
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ttcacttgcc gggcaagtca gagcattagc agttatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcagcct 240
gaagattttg caacttacta ctgtcaacag agttacagtg tccctcccac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 4418
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4418
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Phe Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro

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

<210> 4419
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4419
cagagcatta gcagttat 18

<210> 4420
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4420
Gln Ser Ile Ser Ser Tyr
1 5

<210> 4421
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4421
gctgcatcc 9

<210> 4422
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4422
Ala Ala Ser

<210> 4423
<211> 27
<212> DNA
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<220>
<223> synthetic

<400> 4423
caacagagtt acagtgtccc tcccact 27

<210> 4424
<211> 9
<212> PRT
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<220>
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<400> 4424
Gln Gln Ser Tyr Ser Val Pro Pro Thr
1 5

<210> 4425
<211> 384
<212> DNA
<213> Artificial Sequence

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<400> 4425
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt gcttactact ggagctggat ccggcagccc 120
ccaggaaagg aactggagtg gattggttat atttattaca gtgggagaac caactacaac 180
ccctccctca ggagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aagctgagct ctgtgaccgc tgcggacacg gccgtgtatt actgtgcgag agatgaaagg 300
gattactatg gttcggggac ttacgactac tactactacg gtatggacgt ctggggccaa 360
gggaccacgg tcaccgtctc ctca 384

<210> 4426
<211> 128
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4426
Glu Val Gln Leu Val 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 Ala Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Glu Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Tyr Ser Gly Arg Thr Asn Tyr Asn Pro Ser Leu Arg
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Glu Arg Asp Tyr Tyr Gly Ser Gly Thr Tyr Asp Tyr Tyr Tyr
            100   105   110
Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 4427
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4427
ggtggctcca tcagtgctta ctac   24

<210> 4428
<211> 8
<212> PRT
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<220>
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<400> 4428
Gly Gly Ser Ile Ser Ala Tyr Tyr
 1   5

<210> 4429
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4429

atttattaca gtgggagaac c 21

<210> 4430
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4430
Ile Tyr Tyr Ser Gly Arg Thr
 1 5

<210> 4431
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4431
gcgagagatg aaagggatta ctatggttcg gggacttacg actactacta ctacggtatg 60
gacgtc 66

<210> 4432
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4432
Ala Arg Asp Glu Arg Asp Tyr Tyr Gly Ser Gly Thr Tyr Asp Tyr Tyr
 1 5 10 15
Tyr Tyr Gly Met Asp Val
 20

<210> 4433
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4433
gacatccaga tgacccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 60

atcacttgtc gggcgagtca gggtattaac agctggttag cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcctccagtt tgcaaagtgg ggtcccatca 180
agattcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaaaagtt tcccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 4434
<211> 108
<212> PRT
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<220>
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<400> 4434
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Asn Ser Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Lys Ser Phe Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4435
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4435
cagggtatta acagctgg 18

<210> 4436
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4436
Gln Gly Ile Asn Ser Trp

1 5

<210> 4437
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4437
gctgcctcc 9

<210> 4438
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4438
Ala Ala Ser
1

<210> 4439
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4439
caacaggcta aaagtttccc gtacact 27

<210> 4440
<211> 9
<212> PRT
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<220>
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<400> 4440
Gln Gln Ala Lys Ser Phe Pro Tyr Thr
1 5

<210> 4441

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

<220>
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acctgcactg tctctggtgg ctccatcagt acttactact ggaactggat ccggcagccc 120
ccagggaagg gactggaatg gattgggcat atcttttata gtgggaccac caactacaac 180
ccctccctca ggagtcgagt caccatatca gtagacacgt ccaagaatca gttatccctg 240
aagctgagct ctgtgaccgc tgcggacacg gccttttatt cctgtgcgag agagaggggc 300
ggggtaaccg acggtgacta cggcgggttc gacccctggg gccagggaac cctggtcacc 360
gtctcctca 369

<210> 4442
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4442
Glu Val Gln Leu Val 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 Thr Tyr
            20   25   30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly His Ile Phe Tyr Ser Gly Thr Thr Asn Tyr Asn Pro Ser Leu Arg
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Leu Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Phe Tyr Ser Cys Ala
                85   90   95
Arg Glu Arg Gly Gly Val Thr Asp Gly Asp Tyr Gly Gly Phe Asp Pro
            100   105   110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 4443
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4443

ggtggctcca tcagtactta ctac 24

<210> 4444
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4444
Gly Gly Ser Ile Ser Thr Tyr Tyr
1 5

<210> 4445
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4445
atcttttata gtgggaccac c 21

<210> 4446
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4446
Ile Phe Tyr Ser Gly Thr Thr
1 5

<210> 4447
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4447
gcgagagaga ggggcggggt aaccgacggt gactacggcg ggttcgaccc c 51

<210> 4448
<211> 17

<212> PRT
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<220>
<223> synthetic

<400> 4448
Ala Arg Glu Arg Gly Gly Val Thr Asp Gly Asp Tyr Gly Gly Phe Asp
 1   5   10   15
Pro

<210> 4449
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4449
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atcacttgcc gggcaagtca gatcattagc acctatttaa attggtatca gcagaaacca 120
ggaaaagccc ctcacctcct gatctatgct gcatccaatt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcaccag tctccaacct 240
gaagattttg caacttacta ctgtcaacag agttacagtg cccctcggac gttcggccaa 300
gggaccaagg tggagatcaa acga   324

<210> 4450
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4450
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Ser Ile Thr Cys Arg Ala Ser Gln Ile Ile Ser Thr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro His Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Asn 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 Thr Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ala Pro Arg
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4451
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4451
cagatcatta gcacctat 18

<210> 4452
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4452
Gln Ile Ile Ser Thr Tyr
1 5

<210> 4453
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4453
gctgcatcc 9

<210> 4454
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4454
Ala Ala Ser
1

<210> 4455
<211> 27

<212> DNA
<213> Artificial Sequence

<220>
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<400> 4455
caacagagtt acagtgcccc tcggacg 27

<210> 4456
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 4456
Gln Gln Ser Tyr Ser Ala Pro Arg Thr
1 5

<210> 4457
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4457
caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt gactactatt ggacctggat ccggcagtcc 120
ccagggaagg gactggagtg gattggatat atttattaca gtggcagcac caagtacaac 180
ccctccctca agagtcgagt caccatatca ctagacacgt ccaagaagca gttctccctg 240
aaactgagtt ctttgaccgc tgcggacacg gccgtgtatt actgtgtgag agataacggt 300
gacttatttg actactgggg ccagggaatc ctggtcaccg tctcctca 348

<210> 4458
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4458
Gln Val Gln Leu Val 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 Asp Tyr
20 25 30
Tyr Trp Thr Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile

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        35                  40                  45
Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Lys Tyr Asn Pro Ser Leu Lys
    50                  55                  60
Ser Arg Val Thr Ile Ser Leu Asp Thr Ser Lys Lys Gln Phe Ser Leu
65                  70                  75                  80
Lys Leu Ser Ser Leu Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Val
                85                  90                  95
Arg Asp Asn Gly Asp Leu Phe Asp Tyr Trp Gly Gln Gly Ile Leu Val
            100                 105                 110
Thr Val Ser Ser
        115
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<210> 4459
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4459
ggtggctcca tcagtgacta ctat 24

<210> 4460
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4460
Gly Gly Ser Ile Ser Asp Tyr Tyr
 1   5

<210> 4461
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4461
atttattaca gtggcagcac c 21

<210> 4462
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4462
Ile Tyr Tyr Ser Gly Ser Thr
 1   5

<210> 4463
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4463
gtgagagata acggtgactt atttgactac   30

<210> 4464
<211> 10
<212> PRT
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<220>
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<400> 4464
Val Arg Asp Asn Gly Asp Leu Phe Asp Tyr
 1   5   10

<210> 4465
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4465
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca aaccattaac acctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatgta gcatcccgtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
ggagattttg caacttacta ctgtcaacag agttacagtc ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 4466
<211> 108
<212> PRT

<213> Artificial Sequence

<220>
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<400> 4466
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 Thr Ile Asn Thr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Val Ala Ser Arg 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
Gly Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Pro Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4467
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4467
caaaccatta acacctat   18

<210> 4468
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4468
Gln Thr Ile Asn Thr Tyr
 1   5

<210> 4469
<211> 9
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 4469
gtagcatcc 9

<210> 4470
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4470
Val Ala Ser
1

<210> 4471
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4471
caacagagtt acagtccccc gtacact 27

<210> 4472
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4472
Gln Gln Ser Tyr Ser Pro Pro Tyr Thr
1 5

<210> 4473
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4473
caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60

acctgcactg tctctggtgg ctccatcagt agttacttct ggagctggat ccggcagtcc 120
ccagggaagg gactggaatg gattggatac atttattata gtgggagcac caactataat 180
ccctccctcg agagtcgaat caccatatca gtagacacgt ccaagaacca gttctccctg 240
aagttgaaat ctgtgaccgc cgcagacacg gccgtgtatt attgtgcgag agatgacgca 300
gactataacg gtatggacgt ctggggccaa gggaccacgg tcaccgtctc ctca 354

<210> 4474
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4474
Gln Val Gln Leu Val 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
Phe Trp Ser Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45
Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Glu
50 55 60
Ser Arg Ile Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80
Lys Leu Lys Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95
Arg Asp Asp Ala Asp Tyr Asn Gly Met Asp Val Trp Gly Gln Gly Thr
100 105 110
Thr Val Thr Val Ser Ser
115

<210> 4475
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4475
ggtggctcca tcagtagtta cttc 24

<210> 4476
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4476
Gly Gly Ser Ile Ser Ser Tyr Phe
 1   5

<210> 4477
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4477
atttattata gtgggagcac c   21

<210> 4478
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4478
Ile Tyr Tyr Ser Gly Ser Thr
 1   5

<210> 4479
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4479
gcgagagatg acgcagacta taacggtatg gacgtc   36

<210> 4480
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4480
Ala Arg Asp Asp Ala Asp Tyr Asn Gly Met Asp Val
 1   5   10

<210> 4481
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4481
gacatcgtga tgacccagtc tccagtctcc ctgtccgtca cccttggaca gccggcctcc 60
atctcctgca ggtctagtca aaacctcgta tacagtgatg gaaaaaccta cttaaattgg 120
tttcagcaga ggccaggcca atctccaagg cgcctaattt ataaggtttc taaacgggac 180
tctggagtcc cggacagatt cagcggcagt gggtcaggca ctgatttcac actgaaaatc 240
agcagggttg aggctgagga tgttggagtt tattactgca tgcaaagtac agactggccg 300
ctcactttcg gcggagggac caaggtggag atcaaacga 339

<210> 4482
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4482
Asp Ile Val Met Thr Gln Ser Pro Val Ser Leu Ser Val Thr Leu Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Asn Leu Val Tyr Ser
            20   25   30
Asp Gly Lys Thr Tyr Leu Asn Trp Phe Gln Gln Arg Pro Gly Gln Ser
        35   40   45
Pro Arg Arg Leu Ile Tyr Lys Val Ser Lys Arg Asp Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ser
                85   90   95
Thr Asp Trp Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105   110
Arg

<210> 4483
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4483
caaaacctcg tatacagtga tggaaaaacc tac 33

<210> 4484
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4484
Gln Asn Leu Val Tyr Ser Asp Gly Lys Thr Tyr
1 5 10

<210> 4485
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4485
aaggtttct 9

<210> 4486
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4486
Lys Val Ser
1

<210> 4487
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4487
atgcaaagta cagactggcc gctcact 27

<210> 4488

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

<220>
<223> synthetic

<400> 4488
Met Gln Ser Thr Asp Trp Pro Leu Thr
 1   5

<210> 4489
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4489
gaggtgcagc tggtggagtc gggcccagga ctggtgaaac cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcaat aattactact ggagctggat ccggcagccc 120
ccagggaagg gactggagtg gattgggtat atctattaca gtgggaacac caaatacaac 180
ccctccctca agagtcgagt caccatatca atagacacgt ccaagaacca gttctccctg 240
aagctgagtt ctgtgaccgc tgcggacacg gccgtgtatt attgtgtgag agataacggt 300
gacttatttg actattgggg ccagggaacc ctggtcaccg tctcctca   348

<210> 4490
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4490
Glu Val Gln Leu Val 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 Asn 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 Asn Thr Lys Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Ile Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Val
                85   90   95
Arg Asp Asn Gly Asp Leu Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser

<210> 4491
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4491
ggtggctcca tcaataatta ctac 24

<210> 4492
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4492
Gly Gly Ser Ile Asn Asn Tyr Tyr
1 5

<210> 4493
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4493
atctattaca gtgggaacac c 21

<210> 4494
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4494
Ile Tyr Tyr Ser Gly Asn Thr
1 5

<210> 4495

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

<220>
<223> synthetic

<400> 4495
gtgagagata acggtgactt atttgactat 30

<210> 4496
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4496
Val Arg Asp Asn Gly Asp Leu Phe Asp Tyr
1 5 10

<210> 4497
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4497
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atcacttgcc gggcaagtca gagcattagc acctttttta attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgtt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 4498
<211> 108
<212> PRT
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<220>
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<400> 4498
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 Ser Ile Ser Thr Phe
20 25 30

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Phe Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Val Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Tyr
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 4499
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4499
cagagcatta gcaccttt 18

<210> 4500
<211> 6
<212> PRT
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<220>
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<400> 4500
Gln Ser Ile Ser Thr Phe
 1   5

<210> 4501
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4501
gttgcatcc 9

<210> 4502
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4502
Val Ala Ser
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<210> 4503
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4503
caacagagtt acagtacccc gtacact 27

<210> 4504
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4504
Gln Gln Ser Tyr Ser Thr Pro Tyr Thr
 1 5

<210> 4505
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4505
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt aattattttt ggagttggat ccggcagtcc 120
ccagggaagg gactggaatg gattggatat atttattata gtgggagcac caattacaat 180
ccctccctcg agagtcgaat caccatatca gtagacacgt ccaagaacca gttctccctg 240
aagctgaaat ctgtgaccgc cgcagacacg gccgtgtatt attgtgcgag agatgacgca 300
gactacaacg gtatggacgt ctggggccaa gggaccacgg tcaccgtctc ctca 354

<210> 4506
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4506
Glu Val Gln Leu Val 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
Phe Trp Ser Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Glu
    50   55   60
Ser Arg Ile Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Lys Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Asp Ala Asp Tyr Asn Gly Met Asp Val Trp Gly Gln Gly Thr
            100   105   110
Thr Val Thr Val Ser Ser
        115

<210> 4507
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4507
ggtggctcca tcagtaatta tttt   24

<210> 4508
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 4508
Gly Gly Ser Ile Ser Asn Tyr Phe
 1   5

<210> 4509
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4509
atttattata gtgggagcac c 21

<210> 4510
<211> 7
<212> PRT
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<220>
<223> synthetic

<400> 4510
Ile Tyr Tyr Ser Gly Ser Thr
1 5

<210> 4511
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4511
gcgagagatg acgcagacta caacggtatg gacgtc 36

<210> 4512
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4512
Ala Arg Asp Asp Ala Asp Tyr Asn Gly Met Asp Val
1 5 10

<210> 4513
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4513

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atctcctgca ggtctagtca aagcctcgta tacagtgatg gaaaaaccta cttaaattgg 120
tttcagcaga ggccaggcca atctccaagg cgcctaattt ataaggtttc taaacgggac 180
tctggggtcc cggacagatt cagcggcagt gggtcaggca ctgatttcac actgaaaatc 240
agcagggttg aggctgagga tgttggggtt tattactgca tgcaaagtac agactggccg 300
ctcactttcg gcggagggac caaggtggag atcaaacga 339

<210> 4514
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4514
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val Tyr Ser
            20   25   30
Asp Gly Lys Thr Tyr Leu Asn Trp Phe Gln Gln Arg Pro Gly Gln Ser
        35   40   45
Pro Arg Arg Leu Ile Tyr Lys Val Ser Lys Arg Asp Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ser
                85   90   95
Thr Asp Trp Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105   110
Arg

<210> 4515
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4515
caaagcctcg tatacagtga tggaaaaacc tac 33

<210> 4516
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4516
Gln Ser Leu Val Tyr Ser Asp Gly Lys Thr Tyr
 1   5   10

<210> 4517
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4517
aaggtttct   9

<210> 4518
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4518
Lys Val Ser
 1

<210> 4519
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4519
atgcaaagta cagactggcc gctcact   27

<210> 4520
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4520
Met Gln Ser Thr Asp Trp Pro Leu Thr
 1   5

<210> 4521
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4521
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattttgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggc attagttgga atagtggtaa tataggctat 180
gcggactctg tgaagggccg attcaccatc tcccgagaca acgccaagaa ctccctgtat 240
cttcaaatga acagtctgag agctgcggac acggccttgt atttctgtgc aaaagatata 300
gcagcagctg gcctctacta ctacggtatg gacgtctggg gccaagggac cacggtcacc 360
gtctcctca 369

<210> 4522
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4522
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Phe
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Asn Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Ala Asp Thr Ala Leu Tyr Phe Cys
                85   90   95
Ala Lys Asp Ile Ala Ala Ala Gly Leu Tyr Tyr Tyr Gly Met Asp Val
            100   105   110
Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 4523
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 4523
ggattcacct ttgatgattt tgcc 24

<210> 4524
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4524
Gly Phe Thr Phe Asp Asp Phe Ala
1 5

<210> 4525
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4525
attagttgga atagtggtaa tata 24

<210> 4526
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4526
Ile Ser Trp Asn Ser Gly Asn Ile
1 5

<210> 4527
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4527
gcaaaagata tagcagcagc tggcctctac tactacggta tggacgtc 48

<210> 4528
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4528
Ala Lys Asp Ile Ala Ala Ala Gly Leu Tyr Tyr Tyr Gly Met Asp Val
 1   5   10   15

<210> 4529
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4529
gacatcgtga tgacccagtc tccatccttc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgct gggccagtca ggacattaac agttatttag cctggtatca gcaaaaacca 120
gggaaagccc ctaaactcct gatctatgat gcatccactt tgctaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacag cttaatagtt acccgttcac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 4530
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4530
Asp Ile Val Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Trp Ala Ser Gln Asp Ile Asn 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 Asp Ala Ser Thr Leu Leu 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 Gln Gly Thr Lys Val Glu Ile Lys Arg

100 105

<210> 4531
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4531
caggacatta acagttat 18

<210> 4532
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4532
Gln Asp Ile Asn Ser Tyr
1 5

<210> 4533
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4533
gatgcatcc 9

<210> 4534
<211> 3
<212> PRT
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<220>
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<400> 4534
Asp Ala Ser
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<210> 4535

<211> 27
<212> DNA
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<220>
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<400> 4535
caacagctta atagttaccc gttcact 27

<210> 4536
<211> 9
<212> PRT
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<220>
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<400> 4536
Gln Gln Leu Asn Ser Tyr Pro Phe Thr
1 5

<210> 4537
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4537
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tcctgcaagg cttctggtta cacctttacc agctatggta tcagctgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggatgg atcggcgctt acaaaggtga cacaaattat 180
gcacagaagc tccagggcag agtctccatg accacagaca catccacgag tacaacctac 240
atggagctga ggagccttag atctgacgac acggccgtgt atttctgtgc gagaatagca 300
gtacttggga actttgacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 4538
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4538
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

<210> 4539
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4539
ggttacacct ttaccagcta tggt 24

<210> 4540
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4540
Gly Tyr Thr Phe Thr Ser Tyr Gly
1 5

<210> 4541
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4541
atcggcgctt acaaaggtga caca 24

<210> 4542
<211> 8
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 4542
Ile Gly Ala Tyr Lys Gly Asp Thr
 1   5

<210> 4543
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4543
gcgagaatag cagtacttgg gaactttgac tac   33

<210> 4544
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4544
Ala Arg Ile Ala Val Leu Gly Asn Phe Asp Tyr
 1   5   10

<210> 4545
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4545
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct tcatccagtt tacaaagtga tgtcccatca 180
aggttcagcg gcagtggatc tggcacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacaa gattacaatt accctccgac gttcggccaa 300
gggaccaagg tggaaatcaa acga   324

<210> 4546
<211> 108

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4546
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
            20   25   30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ser Ser Ser Leu Gln Ser Asp Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Asp Tyr Asn Tyr Pro Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4547
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4547
cagggcatta gaaatgat   18

<210> 4548
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4548
Gln Gly Ile Arg Asn Asp
 1   5

<210> 4549
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4549
gcttcatcc 9

<210> 4550
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4550
Ala Ser Ser
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<210> 4551
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4551
ctacaagatt acaattaccc tccgacg 27

<210> 4552
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4552
Leu Gln Asp Tyr Asn Tyr Pro Pro Thr
1 5

<210> 4553
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4553

gaggtgcagc tggtggagtc tggacctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttctggtta cgcctttacc agctatggtg tcaactgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggatgg atcagcgttt acaatggtga cacagattat 180
gcacagaagt tccagggcag agtcaccatg accacagaca catccacgag tacaacctac 240
atggaactga ggagcctgag atctgacgac acggccgtgt atttctgtgc gagaatagct 300
acaactggga actttgacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 4554
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4554
Glu Val Gln Leu Val Glu Ser Gly Pro Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ala Phe Thr Ser Tyr
            20 25 30
Gly Val Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35 40 45
Gly Trp Ile Ser Val Tyr Asn Gly Asp Thr Asp Tyr Ala Gln Lys Phe
    50 55 60
Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Thr Tyr
65 70 75 80
Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Phe Cys
                85 90 95
Ala Arg Ile Ala Thr Thr Gly Asn Phe Asp Tyr Trp Gly Gln Gly Thr
            100 105 110
Leu Val Thr Val Ser Ser
        115

<210> 4555
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4555
ggttacgcct ttaccagcta tggt 24

<210> 4556
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4556
Gly Tyr Ala Phe Thr Ser Tyr Gly
 1   5

<210> 4557
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4557
atcagcgttt acaatggtga caca   24

<210> 4558
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4558
Ile Ser Val Tyr Asn Gly Asp Thr
 1   5

<210> 4559
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4559
gcgagaatag ctacaactgg gaactttgac tac   33

<210> 4560
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4560
Ala Arg Ile Ala Thr Thr Gly Asn Phe Asp Tyr
 1   5   10

<210> 4561
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4561
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct tcatccagtt tacaaaatgg tgtcccatca 180
aggttcagcg gcagtggatc tggcacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacaa gattacaatt accctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 4562
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4562
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
            20   25   30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ser Ser Ser Leu Gln Asn Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Asp Tyr Asn Tyr Pro Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4563
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4563

cagggcatta gaaatgat 18

<210> 4564
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4564
Gln Gly Ile Arg Asn Asp
1 5

<210> 4565
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4565
gcttcatcc 9

<210> 4566
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4566
Ala Ser Ser
1

<210> 4567
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4567
ctacaagatt acaattaccc tccgacg 27

<210> 4568
<211> 9

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4568
Leu Gln Asp Tyr Asn Tyr Pro Pro Thr
 1   5

<210> 4569
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4569
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tcctgtgcag cctctggaat cacctttgat gattatggct tccactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtaa cataggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agctgacgac acggccttgt attactgcgc aaaagatata 300
gcagcagctg gcctctacta ttacggtatg gacgtctggg gccaagggac cacggtcacc 360
gtctcctca   369

<210> 4570
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4570
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Ile Thr Phe Asp Asp Tyr
            20   25   30
Gly Phe His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Asn Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Asp Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Ile Ala Ala Ala Gly Leu Tyr Tyr Tyr Gly Met Asp Val
            100   105   110
Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser

115 120

<210> 4571
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<220>
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<210> 4572
<211> 8
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<220>
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<400> 4572
Gly Ile Thr Phe Asp Asp Tyr Gly
1 5

<210> 4573
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<212> DNA
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<220>
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<400> 4573
attagttgga atagtggtaa cata 24

<210> 4574
<211> 8
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<220>
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<400> 4574
Ile Ser Trp Asn Ser Gly Asn Ile
1 5

<210> 4575

<211> 48
<212> DNA
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<400> 4575
gcaaaagata tagcagcagc tggcctctac tattacggta tggacgtc 48

<210> 4576
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<400> 4576
Ala Lys Asp Ile Ala Ala Ala Gly Leu Tyr Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 4577
<211> 324
<212> DNA
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<400> 4577
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atcacttgct gggccagtca ggacattact acttatttag tctggtatca gcaaaaacca 120
gggaaagccc ctaagttcct gatctatgct gcatccactt tgcaaagagg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gcagattttg caacttatta ctgtcaacag cttaatagtt atccgttcac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 4578
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4578
Asp Ile Gln Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Trp Ala Ser Gln Asp Ile Thr Thr Tyr
20 25 30

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Leu Val Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Phe Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Thr Leu Gln Arg 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
Ala Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu Asn Ser Tyr Pro Phe
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 4579
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<400> 4579
caggacatta ctacttat 18

<210> 4580
<211> 6
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<220>
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<400> 4580
Gln Asp Ile Thr Thr Tyr
 1   5

<210> 4581
<211> 9
<212> DNA
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<220>
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<400> 4581
gctgcatcc 9

<210> 4582
<211> 3
<212> PRT
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<220>
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<400> 4582
Ala Ala Ser
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<210> 4583
<211> 27
<212> DNA
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<400> 4583
caacagctta atagttatcc gttcact 27

<210> 4584
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<212> PRT
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<400> 4584
Gln Gln Leu Asn Ser Tyr Pro Phe Thr
 1 5

<210> 4585
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<212> DNA
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tcctgtgcag cctctggatt cacctttgat gattttgcca tgcactgggt ccggcaaggt 120
ccagggaagg gcctggagtg ggtctcaggc attagttgga atagtggtaa tataggctat 180
gcggactctg tgaagggccg attcaccgtc tccagagaca acgccaagag ctccctgtat 240
cttcaaatga acagtctgag agctgcggac acggccttgt atttctgtgc aaaagatata 300
gcagcagctg gcctctacta ctacggtatg gacgtctggg gccaagggac cacggtcacc 360
gtctcctca 369

<210> 4586
<211> 123
<212> PRT

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

<210> 4587
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<212> DNA
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<220>
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<400> 4587
ggattcacct ttgatgattt tgcc   24

<210> 4588
<211> 8
<212> PRT
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<220>
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<400> 4588
Gly Phe Thr Phe Asp Asp Phe Ala
 1   5

<210> 4589
<211> 24
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<400> 4589
attagttgga atagtggtaa tata 24

<210> 4590
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<400> 4590
Ile Ser Trp Asn Ser Gly Asn Ile
1 5

<210> 4591
<211> 48
<212> DNA
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<400> 4591
gcaaaagata tagcagcagc tggcctctac tactacggta tggacgtc 48

<210> 4592
<211> 16
<212> PRT
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<220>
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<400> 4592
Ala Lys Asp Ile Ala Ala Ala Gly Leu Tyr Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 4593
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4593
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atcacttgct gggccagtca ggacattaac agttatttag tctggtatca gcaaaaacca 120
gggaaagccc ctaaactcct gatctatgat gcatccactt tgctgagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagag ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacag cttaatagtt acccgttcac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 4594
<211> 108
<212> PRT
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<220>
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<400> 4594
Asp Ile Gln Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Trp Ala Ser Gln Asp Ile Asn Ser Tyr
            20   25   30
Leu Val Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Asp Ala Ser Thr Leu Leu 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 Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4595
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<212> DNA
<213> Artificial Sequence

<220>
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<400> 4595
caggacatta acagttat 18

<210> 4596
<211> 6
<212> PRT
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<220>
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<400> 4596
Gln Asp Ile Asn Ser Tyr
 1   5

<210> 4597
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4597
gatgcatcc   9

<210> 4598
<211> 3
<212> PRT
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<220>
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<400> 4598
Asp Ala Ser
 1

<210> 4599
<211> 27
<212> DNA
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<220>
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<400> 4599
caacagctta atagttaccc gttcact   27

<210> 4600
<211> 9
<212> PRT
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<220>
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<400> 4600
Gln Gln Leu Asn Ser Tyr Pro Phe Thr
 1   5

<210> 4601
<211> 354
<212> DNA
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<220>
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<400> 4601
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acctgcactg tctctggtgg ctccatcagt agttacttct ggagctggat ccggcagtcc 120
ccagggaagg gactggaatg gattggatat atttattata gtgggagcac caattacaat 180
ccctccctcg agagtcgaat caccatatca gtagacacgt ccaagaacca gttctccctg 240
aagctgaaat ctgtgaccgc cgcagacacg gccgtgtatt attgtgcgag agatgacgca 300
gactacaacg gtatggacgt ctggggccaa gggaccacgg tcaccgtctc ctca 354

<210> 4602
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4602
Glu Val Gln Leu Val 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
Phe Trp Ser Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Glu
    50   55   60
Ser Arg Ile Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Lys Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Asp Ala Asp Tyr Asn Gly Met Asp Val Trp Gly Gln Gly Thr
            100   105   110
Thr Val Thr Val Ser Ser
        115

<210> 4603
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4603
ggtggctcca tcagtagtta cttc 24

<210> 4604
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4604
Gly Gly Ser Ile Ser Ser Tyr Phe
1 5

<210> 4605
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4605
atttattata gtgggagcac c 21

<210> 4606
<211> 7
<212> PRT
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<220>
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<400> 4606
Ile Tyr Tyr Ser Gly Ser Thr
1 5

<210> 4607
<211> 36
<212> DNA
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<220>
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<400> 4607
gcgagagatg acgcagacta caacggtatg gacgtc 36

<210> 4608

<211> 12
<212> PRT
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<220>
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<400> 4608
Ala Arg Asp Asp Ala Asp Tyr Asn Gly Met Asp Val
 1   5   10

<210> 4609
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4609
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atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta cccctctcac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 4610
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4610
Asp Ile Val 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 Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4611
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4611
cagagcatta gcagctat 18

<210> 4612
<211> 6
<212> PRT
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<220>
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<400> 4612
Gln Ser Ile Ser Ser Tyr
1 5

<210> 4613
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4613
gctgcatcc 9

<210> 4614
<211> 3
<212> PRT
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<220>
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<400> 4614
Ala Ala Ser
1

<210> 4615
<211> 27
<212> DNA

<213> Artificial Sequence

<220>
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<400> 4615
caacagagtt acagtacccc tctcact 27

<210> 4616
<211> 9
<212> PRT
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<220>
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<400> 4616
Gln Gln Ser Tyr Ser Thr Pro Leu Thr
 1 5

<210> 4617
<211> 348
<212> DNA
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<220>
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<400> 4617
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acctgcactg tctctggtgg ctccattagt ggtttctact ggagctggat ccggcagccc 120
ccagggaagg gactggagtg gattgggtat atctattaca gtgggagcac taagtacaac 180
ccctccctca agagtcgagt caccttgtca gtagacacgt ccaagaacca gttctccctg 240
aagctgagct ctgtgaccgc tgcggacacg gccgtgtatt actgtgtgag agataacggt 300
gacttatttg actattgggg ccagggaacc acggtcaccg tctcctca 348

<210> 4618
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4618
Glu Val Gln Leu Val 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 Gly Phe
 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 Ser Thr Lys Tyr Asn Pro Ser Leu Lys
50 55 60
Ser Arg Val Thr Leu Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Val
85 90 95
Arg Asp Asn Gly Asp Leu Phe Asp Tyr Trp Gly Gln Gly Thr Thr Val
100 105 110
Thr Val Ser Ser
115

<210> 4619
<211> 24
<212> DNA
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<220>
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<400> 4619
ggtggctcca ttagtggttt ctac 24

<210> 4620
<211> 8
<212> PRT
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<220>
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<400> 4620
Gly Gly Ser Ile Ser Gly Phe Tyr
1 5

<210> 4621
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4621
atctattaca gtgggagcac t 21

<210> 4622
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4622
Ile Tyr Tyr Ser Gly Ser Thr
 1   5

<210> 4623
<211> 30
<212> DNA
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<220>
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<400> 4623
gtgagagata acggtgactt atttgactat   30

<210> 4624
<211> 10
<212> PRT
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<220>
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<400> 4624
Val Arg Asp Asn Gly Asp Leu Phe Asp Tyr
 1   5   10

<210> 4625
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4625
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atcacttgcc gggcaagtca gagcattagc agctatttaa actggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatgtt gcatccagtt tgcgaagtgg ggtcccatca 180
aggttcagtg gcagtgggtc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttactg ctgtcaacag agttacagta ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 4626
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4626
Asp Ile Leu 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 Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Val Ala Ser Ser Leu Arg Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Cys Cys Gln Gln Ser Tyr Ser Thr Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4627
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4627
cagagcatta gcagctat   18

<210> 4628
<211> 6
<212> PRT
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<220>
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<400> 4628
Gln Ser Ile Ser Ser Tyr
 1   5

<210> 4629
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4629
gttgcatcc 9

<210> 4630
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4630
Val Ala Ser
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<210> 4631
<211> 27
<212> DNA
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<220>
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<400> 4631
caacagagtt acagtacccc gtacact 27

<210> 4632
<211> 9
<212> PRT
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<220>
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<400> 4632
Gln Gln Ser Tyr Ser Thr Pro Tyr Thr
1 5

<210> 4633
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4633
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacgtttgat gattatgcca tgcactgggt ccggcaagtt 120

ccagggaagg gcctggagtg ggtctcaggg attagttgga atagtggtaa cataggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgacaagaa ttccctgtat 240
cttcaaatga acagtctgag aactgaggac acggccttgt attactgtgc aaaagatata 300
gcagcagctg gcctctacta ctacggtatg gacgtctggg gccaagggac cacggtcacc 360
gtctcctca 369

<210> 4634
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4634
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Asn Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Asp Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Ile Ala Ala Ala Gly Leu Tyr Tyr Tyr Gly Met Asp Val
            100   105   110
Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 4635
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4635
ggattcacgt ttgatgatta tgcc 24

<210> 4636
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4636
Gly Phe Thr Phe Asp Asp Tyr Ala
 1   5

<210> 4637
<211> 24
<212> DNA
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<220>
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<400> 4637
attagttgga atagtggtaa cata   24

<210> 4638
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 4638
Ile Ser Trp Asn Ser Gly Asn Ile
 1   5

<210> 4639
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4639
gcaaaagata tagcagcagc tggcctctac tactacggta tggacgtc   48

<210> 4640
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4640
Ala Lys Asp Ile Ala Ala Ala Gly Leu Tyr Tyr Tyr Gly Met Asp Val
 1   5   10   15

<210> 4641
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4641
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atcacttgct gggccagtca ggacattaac aattatttag tctggtatca gcaaaaacca 120
gggaaaggcc ctaagctcct gatctatgct gcatccactt tattaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacaa gttaacagtt acccgttcac tcttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 4642
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4642
Asp Ile Gln Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Trp Ala Ser Gln Asp Ile Asn Asn Tyr
            20   25   30
Leu Val Trp Tyr Gln Gln Lys Pro Gly Lys Gly Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Thr Leu Leu 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 Val Asn Ser Tyr Pro Phe
                85   90   95
Thr Leu Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4643
<211> 18
<212> DNA
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 1   5

<210> 4645
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<212> DNA
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<400> 4645
gctgcatcc 9

<210> 4646
<211> 3
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<220>
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<400> 4646
Ala Ala Ser
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<210> 4647
<211> 27
<212> DNA
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<220>
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<400> 4647
caacaagtta acagttaccc gttcact 27

<210> 4648
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<212> PRT

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<400> 4648
Gln Gln Val Asn Ser Tyr Pro Phe Thr
 1   5

<210> 4649
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<212> DNA
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tcctgtgcag cctctggatt cacctttgat gattttgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggc attagttgga atagcggtaa tataggctat 180
gcggactctg tgaagggccg attcaccgtc tccagagaca acgccaagag ctccctgtat 240
cttcaaatga acagtctgag agctgcggac acggccttgt atttctgtgc aaaagatata 300
gcagcagctg gcctctacta ctacggtatg gacgtctggg gccaagggac cacggtcacc 360
gtctcctca   369

<210> 4650
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 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Phe
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Asn Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Val Ser Arg Asp Asn Ala Lys Ser Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Ala Asp Thr Ala Leu Tyr Phe Cys
                85   90   95
Ala Lys Asp Ile Ala Ala Ala Gly Leu Tyr Tyr Tyr Gly Met Asp Val
            100   105   110
Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

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<212> DNA
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<400> 4651
ggattcacct ttgatgattt tgcc 24

<210> 4652
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<212> PRT
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<220>
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<400> 4652
Gly Phe Thr Phe Asp Asp Phe Ala
 1 5

<210> 4653
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<220>
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<400> 4653
attagttgga atagcggtaa tata 24

<210> 4654
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<212> PRT
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<220>
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<400> 4654
Ile Ser Trp Asn Ser Gly Asn Ile
 1 5

<210> 4655
<211> 48

<212> DNA
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<400> 4655
gcaaaagata tagcagcagc tggcctctac tactacggta tggacgtc 48

<210> 4656
<211> 16
<212> PRT
<213> Artificial Sequence

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<400> 4656
Ala Lys Asp Ile Ala Ala Ala Gly Leu Tyr Tyr Tyr Gly Met Asp Val
 1 5 10 15

<210> 4657
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4657
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gggaaagccc ctaaactcct gatctatgat gcatccactt tgctgagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacag cttaatagtt acccgttcac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 4658
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4658
Asp Ile Leu Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1 5 10 15
Asp Arg Val Thr Ile Thr Cys Trp Ala Ser Gln Asp Ile Asn Ser Tyr
 20 25 30
Leu Val Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile

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        35                  40                  45
Tyr Asp Ala Ser Thr Leu Leu 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 Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<220>
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<400> 4659
caggacatta acagttat 18

<210> 4660
<211> 6
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<220>
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<400> 4660
Gln Asp Ile Asn Ser Tyr
 1   5

<210> 4661
<211> 9
<212> DNA
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<220>
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<400> 4661
gatgcatcc 9

<210> 4662
<211> 3
<212> PRT
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<220>

<223> synthetic

<400> 4662
Asp Ala Ser
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<210> 4663
<211> 27
<212> DNA
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<220>
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<400> 4663
caacagctta atagttaccc gttcact 27

<210> 4664
<211> 9
<212> PRT
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<220>
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<400> 4664
Gln Gln Leu Asn Ser Tyr Pro Phe Thr
 1 5

<210> 4665
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
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ccagggaagg gcctggagtg ggtctcaact attagtggtg gtggtggtac cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attattgtgc ggctggggat 300
cgtcttgact ggtacttcga tttttggggc cgtggcaccc tggtcaccgt ctcctca 357

<210> 4666
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4666
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 Thr Ile Ser Gly Gly Gly Gly Thr 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 Tyr Cys
                85   90   95
Ala Ala Gly Asp Arg Leu Asp Trp Tyr Phe Asp Phe Trp Gly Arg Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 4667
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4667
ggattcacct ttagcagcta tgcc   24

<210> 4668
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4668
Gly Phe Thr Phe Ser Ser Tyr Ala
 1   5

<210> 4669
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 4669
attagtggtg gtggtggtac caca 24

<210> 4670
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4670
Ile Ser Gly Gly Gly Gly Thr Thr
1 5

<210> 4671
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4671
gcggctgggg atcgtcttga ctggtacttc gatttt 36

<210> 4672
<211> 12
<212> PRT
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<400> 4672
Ala Ala Gly Asp Arg Leu Asp Trp Tyr Phe Asp Phe
1 5 10

<210> 4673
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4673
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atcaattgcc gggcaagtca gagcattttc acctctttaa attggtatca gcagagacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagtt ccccattcac tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 4674
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4674
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15
Asp Arg Val Thr Ile Asn Cys Arg Ala Ser Gln Ser Ile Phe Thr Ser
            20 25 30
Leu Asn Trp Tyr Gln Gln Arg Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35 40 45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ser Pro Phe
                85 90 95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100 105

<210> 4675
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4675
cagagcattt tcacctct 18

<210> 4676
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4676
Gln Ser Ile Phe Thr Ser

1 5

<210> 4677
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4677
gctgcatcc 9

<210> 4678
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4678
Ala Ala Ser
1

<210> 4679
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4679
caacagagtt acagttcccc attcact 27

<210> 4680
<211> 9
<212> PRT
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<220>
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<400> 4680
Gln Gln Ser Tyr Ser Ser Pro Phe Thr
1 5

<210> 4681

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

<220>
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<400> 4681
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tcctgtgcag cctctggatt cacctttgat gattttgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggc attagttgga atagtggtaa tataggctat 180
gcggactctg tgaagggccg attcaccgtc tccagagaca acgccaagag ctccctgtat 240
cttcaaatga acagtctgag agctgcggac acggccttgt atttctgtgc aaaagatata 300
gcagctgctg gcctctacta ctacggtatg gacgtctggg gtcaagggac cacggtcacc 360
gtctcctca 369

<210> 4682
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4682
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Phe
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Asn Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Val Ser Arg Asp Asn Ala Lys Ser Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Ala Asp Thr Ala Leu Tyr Phe Cys
                85   90   95
Ala Lys Asp Ile Ala Ala Ala Gly Leu Tyr Tyr Tyr Gly Met Asp Val
            100   105   110
Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 4683
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4683

ggattcacct ttgatgattt tgcc 24

<210> 4684
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 4684
Gly Phe Thr Phe Asp Asp Phe Ala
 1 5

<210> 4685
<211> 24
<212> DNA
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<220>
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<400> 4685
attagttgga atagtggtaa tata 24

<210> 4686
<211> 8
<212> PRT
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<220>
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<400> 4686
Ile Ser Trp Asn Ser Gly Asn Ile
 1 5

<210> 4687
<211> 48
<212> DNA
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<220>
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<400> 4687
gcaaaagata tagcagctgc tggcctctac tactacggta tggacgtc 48

<210> 4688
<211> 16

<212> PRT
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<220>
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<400> 4688
Ala Lys Asp Ile Ala Ala Ala Gly Leu Tyr Tyr Tyr Gly Met Asp Val
 1   5   10   15

<210> 4689
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4689
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atcacttgct gggccagtca ggacattaac agttatttag tctggtatca gcaaaaacca 120
gggaaagccc ctaaactcct gatctatgat gcatccactt tgctgagtgg ggtcccatca 180
gggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacag cttaatagtt acccgttcac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 4690
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4690
Asp Ile Gln Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Trp Ala Ser Gln Asp Ile Asn Ser Tyr
            20   25   30
Leu Val Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Asp Ala Ser Thr Leu Leu Ser Gly Val Pro Ser Gly 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 Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4691
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4691
caggacatta acagttat 18

<210> 4692
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4692
Gln Asp Ile Asn Ser Tyr
1 5

<210> 4693
<211> 9
<212> DNA
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<220>
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<400> 4693
gatgcatcc 9

<210> 4694
<211> 3
<212> PRT
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<220>
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<400> 4694
Asp Ala Ser
1

<210> 4695
<211> 27
<212> DNA
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<220>
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<400> 4695
caacagctta atagttaccc gttcact 27

<210> 4696
<211> 9
<212> PRT
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<220>
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<400> 4696
Gln Gln Leu Asn Ser Tyr Pro Phe Thr
1 5

<210> 4697
<211> 354
<212> DNA
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<220>
<223> synthetic

<400> 4697
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tcctgcaagg cttctggtta cacctttagc agctatggta tcacctggat gcgacaggcc 120
cctggacaag ggcttgagtg gatgggatgg atcagcgctt acaatggaga cacagactat 180
gcacagcagt tccagggcag agtcaccatg accacagaca catccacgaa cacagtctac 240
atggaactga ggagcctgag atctgacgac acggccgtgt tttactgtgc gagaatagca 300
gtacctggga actttgacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 4698
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4698
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Ser Tyr
20 25 30
Gly Ile Thr Trp Met Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Trp Ile Ser Ala Tyr Asn Gly Asp Thr Asp Tyr Ala Gln Gln Phe

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    50                  55                  60
Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Asn Thr Val Tyr
65                  70                  75                  80
Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Phe Tyr Cys
                85                  90                  95
Ala Arg Ile Ala Val Pro Gly Asn Phe Asp Tyr Trp Gly Gln Gly Thr
            100                 105                 110
Leu Val Thr Val Ser Ser
        115
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<210> 4699
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4699
ggttacacct ttagcagcta tggt 24

<210> 4700
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4700
Gly Tyr Thr Phe Ser Ser Tyr Gly
 1   5

<210> 4701
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4701
atcagcgctt acaatggaga caca 24

<210> 4702
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 4702
Ile Ser Ala Tyr Asn Gly Asp Thr
 1   5

<210> 4703
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4703
gcgagaatag cagtacctgg gaactttgac tac   33

<210> 4704
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4704
Ala Arg Ile Ala Val Pro Gly Asn Phe Asp Tyr
 1   5   10

<210> 4705
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4705
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atcacttgcc gggcaagtca gggcattaga agtgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatggt gcatccagtt tacaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tggcacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattgtg caacttatta ttgtctacaa gactacaaca accctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga   324

<210> 4706
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4706
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Ser Asp
            20   25   30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Cys Ala Thr Tyr Tyr Cys Leu Gln Asp Tyr Asn Asn Pro Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4707
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4707
cagggcatta gaagtgat   18

<210> 4708
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4708
Gln Gly Ile Arg Ser Asp
 1   5

<210> 4709
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4709
ggtgcatcc 9

<210> 4710
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4710
Gly Ala Ser
1

<210> 4711
<211> 27
<212> DNA
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<220>
<223> synthetic

<400> 4711
ctacaagact acaacaaccc tccgacg 27

<210> 4712
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4712
Leu Gln Asp Tyr Asn Asn Pro Pro Thr
1 5

<210> 4713
<211> 369
<212> DNA
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<220>
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<400> 4713
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tcctgtgcag cctctggatt cacctttgat gattttgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggc attagttgga atagtggtaa tataggctat 180

gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagag gtccctgtat 240
cttcaaatga acagtctgag agctgcggac acggccttgt atttctgtgc aaaagatata 300
gcagcagctg gcctctacta ctacggtatg gacgtctggg gccaagggac cacggtcacc 360
gtctcctca 369

<210> 4714
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4714
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Phe
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Asn Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Arg Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Ala Asp Thr Ala Leu Tyr Phe Cys
                85   90   95
Ala Lys Asp Ile Ala Ala Ala Gly Leu Tyr Tyr Tyr Gly Met Asp Val
            100   105   110
Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 4715
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4715
ggattcacct ttgatgattt tgcc 24

<210> 4716
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4716

Gly Phe Thr Phe Asp Asp Phe Ala
1 5

<210> 4717
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4717
attagttgga atagtggtaa tata 24

<210> 4718
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4718
Ile Ser Trp Asn Ser Gly Asn Ile
1 5

<210> 4719
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4719
gcaaaagata tagcagcagc tggcctctac tactacggta tggacgtc 48

<210> 4720
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4720
Ala Lys Asp Ile Ala Ala Ala Gly Leu Tyr Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 4721
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4721
gacatcctga tgacccagtc tccatccttc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgct gggccagtca ggacattaac agttatttag cctggtatca gcaaaaacca 120
gggaaagccc ctaaactcct gatctatgat gcatccactt tgctaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtcaacag cttaatagtt acccgttcac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 4722
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4722
Asp Ile Leu Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Trp Ala Ser Gln Asp Ile Asn 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 Asp Ala Ser Thr Leu Leu 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 Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4723
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4723
caggacatta acagttat 18

<210> 4724
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4724
Gln Asp Ile Asn Ser Tyr
 1   5

<210> 4725
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4725
gatgcatcc 9

<210> 4726
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4726
Asp Ala Ser
 1

<210> 4727
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4727
caacagctta atagttaccc gttcact 27

<210> 4728
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4728
Gln Gln Leu Asn Ser Tyr Pro Phe Thr
 1   5

<210> 4729
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4729
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acctgcactg tctctggtgg ctccatcagt ggttccttct ggagctggat ccggcagtcc 120
ccagggaagg gactggaatg gattggatat atttattata ctgggagtac caattacaat 180
ccctccctcg agagtcgaat caccatatca gtagacacgt ccaagaacca gttctccctg 240
aagctgaaat ctgtgaccgc cgcagacacg gccgtgtatt attgtgcgag agatgacgca 300
gactacaacg gtatggacgt ctggggccaa gggaccacgg tcaccgtctc ctca   354

<210> 4730
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4730
Glu Val Gln Leu Val 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 Gly Ser
            20   25   30
Phe Trp Ser Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Tyr Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Glu
    50   55   60
Ser Arg Ile Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Lys Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Asp Ala Asp Tyr Asn Gly Met Asp Val Trp Gly Gln Gly Thr
            100   105   110
Thr Val Thr Val Ser Ser
        115

<210> 4731
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4731
ggtggctcca tcagtggttc cttc 24

<210> 4732
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4732
Gly Gly Ser Ile Ser Gly Ser Phe
1 5

<210> 4733
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4733
atttattata ctgggagtac c 21

<210> 4734
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4734
Ile Tyr Tyr Thr Gly Ser Thr
1 5

<210> 4735
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4735
gcgagagatg acgcagacta caacggtatg gacgtc 36

<210> 4736
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4736
Ala Arg Asp Asp Ala Asp Tyr Asn Gly Met Asp Val
 1 5 10

<210> 4737
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4737
gacatcgtga tgacccagtc tccagtctcc ctgtccgtca cccttggaca gccggcctcc 60
atctcctgca ggtctagtca aagcctcgta tacagtgatg gaaaaaccta cttaaattgg 120
tttcagcaga ggccaggcca atctccaagg cgcctaattt ataaggtttc taaacgggac 180
tctggggtcc cggacagatt cagcggcagt gggtcaggca ctgatttcac actgaaaatc 240
agcagggttg aggctgagga tgttggaatt tattactgca tgcaaagtac agactggccg 300
ctcactttcg gcggagggac caaggtggag atcaaacga 339

<210> 4738
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4738
Asp Ile Val Met Thr Gln Ser Pro Val Ser Leu Ser Val Thr Leu Gly
 1 5 10 15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val Tyr Ser
            20 25 30
Asp Gly Lys Thr Tyr Leu Asn Trp Phe Gln Gln Arg Pro Gly Gln Ser
        35 40 45
Pro Arg Arg Leu Ile Tyr Lys Val Ser Lys Arg Asp Ser Gly Val Pro

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    50                  55                  60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65                  70                  75                  80
Ser Arg Val Glu Ala Glu Asp Val Gly Ile Tyr Tyr Cys Met Gln Ser
                85                  90                  95
Thr Asp Trp Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105                 110
Arg
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<210> 4739
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4739
caaagcctcg tatacagtga tggaaaaacc tac 33

<210> 4740
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4740

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Gln Ser Leu Val Tyr Ser Asp Gly Lys Thr Tyr
 1               5                  10
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<210> 4741
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4741
aaggtttct 9

<210> 4742
<211> 3
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 4742
Lys Val Ser
 1

<210> 4743
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4743
atgcaaagta cagactggcc gctcact 27

<210> 4744
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4744
Met Gln Ser Thr Asp Trp Pro Leu Thr
 1 5

<210> 4745
<211> 351
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4745
gaggtgcagc tggtggagtc tggacctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttcgcatta cacctttacc acctatggta tcagttgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggatgg atcagcggtt acaatggtaa cggaaacctt 180
gtaaagaagt tccaggacag agtcaccacg gccacagaca catccacgaa cacagtctac 240
atggagctga ggagcctgag atctgacgac acggccatat attactgtgc tcgaaatcgt 300
cttgattctt ttgatgtttg gggccaaggg acaatggtca ccgtctcctc a 351

<210> 4746
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4746
Glu Val Gln Leu Val Glu Ser Gly Pro Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser His Tyr Thr Phe Thr Thr Tyr
            20   25   30
Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Trp Ile Ser Gly Tyr Asn Gly Asn Gly Asn Leu Val Lys Lys Phe
    50   55   60
Gln Asp Arg Val Thr Thr Ala Thr Asp Thr Ser Thr Asn Thr Val Tyr
65   70   75   80
Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Ile Tyr Tyr Cys
                85   90   95
Ala Arg Asn Arg Leu Asp Ser Phe Asp Val Trp Gly Gln Gly Thr Met
            100   105   110
Val Thr Val Ser Ser
        115

<210> 4747
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4747
cattacacct ttaccaccta tggt   24

<210> 4748
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4748
His Tyr Thr Phe Thr Thr Tyr Gly
 1   5

<210> 4749
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 4749
atcagcggtt acaatggtaa cgga 24

<210> 4750
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4750
Ile Ser Gly Tyr Asn Gly Asn Gly
1 5

<210> 4751
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4751
gctcgaaatc gtcttgattc ttttgatgtt 30

<210> 4752
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4752
Ala Arg Asn Arg Leu Asp Ser Phe Asp Val
1 5 10

<210> 4753
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4753
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60

ttcacttgcc gggcaagtca gagcattagc agttatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcagcct 240
gaagattttg caacttacta ctgtcaacag agttacagta tccctcccac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 4754
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4754
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15
Asp Arg Val Thr Phe Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
            20 25 30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35 40 45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ile Pro Pro
                85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100 105

<210> 4755
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4755
cagagcatta gcagttat 18

<210> 4756
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4756
Gln Ser Ile Ser Ser Tyr

1 5

<210> 4757
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4757
gctgcatcc 9

<210> 4758
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4758
Ala Ala Ser
1

<210> 4759
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4759
caacagagtt acagtatccc tcccact 27

<210> 4760
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4760
Gln Gln Ser Tyr Ser Ile Pro Pro Thr
1 5

<210> 4761

<211> 396
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4761
caggtgcagc tggtggagtc tgggcctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
tcctgcaagg cttctggagg caccttcaag aaacatgcta taagctgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggaggg atcatcccta tctttgattc aacagactac 180
gcacagaact tccagggcag agtcacgatt acctcggacg aatccacgcg cacagcctac 240
atggagatga gcagcctgag atctgaggac acggccgtat attactgtgc gagatccagt 300
ttagcaactc gtcagtggga gatattagag acggtaaact actattacta cggtatggac 360
gtctggggcc aagggaccac ggtcaccgtc tcctca 396

<210> 4762
<211> 132
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4762
Gln Val Gln Leu Val Glu Ser Gly Pro Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Lys Lys His
            20   25   30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Gly Ile Ile Pro Ile Phe Asp Ser Thr Asp Tyr Ala Gln Asn Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Ser Asp Glu Ser Thr Arg Thr Ala Tyr
65   70   75   80
Met Glu Met Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Ser Ser Leu Ala Thr Arg Gln Trp Glu Ile Leu Glu Thr Val
            100   105   110
Asn Tyr Tyr Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val
        115   120   125
Thr Val Ser Ser
    130

<210> 4763
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4763
ggaggcacct tcaagaaaca tgct 24

<210> 4764
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4764
Gly Gly Thr Phe Lys Lys His Ala
1 5

<210> 4765
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4765
atcatcccta tctttgattc aaca 24

<210> 4766
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4766
Ile Ile Pro Ile Phe Asp Ser Thr
1 5

<210> 4767
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4767
gcgagatcca gtttagcaac tcgtcagtgg gagatattag agacggtaaa ctactattac 60
tacggtatgg acgtc 75

<210> 4768
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4768
Ala Arg Ser Ser Leu Ala Thr Arg Gln Trp Glu Ile Leu Glu Thr Val
 1   5   10   15
Asn Tyr Tyr Tyr Tyr Gly Met Asp Val
            20   25

<210> 4769
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4769
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatatta ctgtcaacag tatgataatc tattcacttt cggccctggg 300
accaaggtgg agatcaaacg a   321

<210> 4770
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4770
Asp Ile Leu 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 Ser 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 Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asn Leu Phe Thr

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

<210> 4771
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4771
caggacatta gcaactat 18

<210> 4772
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4772
Gln Asp Ile Ser Asn Tyr
1 5

<210> 4773
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4773
gatgcatcc 9

<210> 4774
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4774
Asp Ala Ser
1

<210> 4775
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4775
caacagtatg ataatctatt cact 24

<210> 4776
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4776
Gln Gln Tyr Asp Asn Leu Phe Thr
1 5

<210> 4777
<211> 396
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4777
gaggtgcagc tggtggagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
tcctgcaagg cttctggagg caccttcagc aggtatgcta tcagctggat gcgacaggcc 120
cctggacaag ggcttgagtg gatgggaggg atcatcccta tatttagtac agcagactac 180
gaacagaagt ttaagggcag agtcacgatt accacggacg aatccacggg cacagcctac 240
atggaactga gcagcctgag atctgaggac acggccgtgt attactgtgc gagagccagt 300
ctagcagctc gtcagtggga gataagagag agggtaagcc actactactt cggtatggac 360
gtctggggcc aagggaccac ggtcaccgtc tcctca 396

<210> 4778
<211> 132
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4778
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Ser

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 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Arg Tyr
            20                  25                  30
Ala Ile Ser Trp Met Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Gly Ile Ile Pro Ile Phe Ser Thr Ala Asp Tyr Glu Gln Lys Phe
    50                  55                  60
Lys Gly Arg Val Thr Ile Thr Thr Asp Glu Ser Thr Gly Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Ala Ser Leu Ala Ala Arg Gln Trp Glu Ile Arg Glu Arg Val
            100                 105                 110
Ser His Tyr Tyr Phe Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val
        115                 120                 125
Thr Val Ser Ser
    130
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<210> 4779
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4779
ggaggcacct tcagcaggta tgct 24

<210> 4780
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4780

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Gly Gly Thr Phe Ser Arg Tyr Ala
 1               5
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<210> 4781
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4781

atcatcccta tatttagtac agca 24

<210> 4782
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4782
Ile Ile Pro Ile Phe Ser Thr Ala
 1 5

<210> 4783
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4783
gcgagagcca gtctagcagc tcgtcagtgg gagataagag agagggtaag ccactactac 60
ttcggtatgg acgtc 75

<210> 4784
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4784
Ala Arg Ala Ser Leu Ala Ala Arg Gln Trp Glu Ile Arg Glu Arg Val
 1 5 10 15
Ser His Tyr Tyr Phe Gly Met Asp Val
 20 25

<210> 4785
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4785
gacatcctga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60

atcacttgcc gggccagtca gagtattagt aactggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag gctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 4786
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4786
Asp Ile Leu Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Asn Trp
            20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35 40 45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Arg Leu Gln Pro
65 70 75 80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Pro
                85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100 105

<210> 4787
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4787
cagagtatta gtaactgg 18

<210> 4788
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4788
Gln Ser Ile Ser Asn Trp

1 5

<210> 4789
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4789
aaggcgtct 9

<210> 4790
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4790
Lys Ala Ser
1

<210> 4791
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4791
caacagtata atagttattc tccgacg 27

<210> 4792
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4792
Gln Gln Tyr Asn Ser Tyr Ser Pro Thr
1 5

<210> 4793

<211> 396
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4793
gaggtgcagc tggtggagtc tggggcagag gtgaagaggc ctgggtcctc ggtgaaggtc 60
tcctgcaagg cttctggagg caccttcagg aagtatgctg tcagctgggt gcgacaggcc 120
cccggacaag ggcttgagtg gatgggaggg atcatcccta tatttagtac agcagactac 180
gaagagaaat ttaagggcag agtcacgatc accacggacg aatccacggg cacagcctac 240
atggagctga ctagcctgag atctgaggac acggccgtgt attactgtgc gagagccagt 300
ctagcagttc gtcagtggga gataagagag acgataagcc actactactt cggtatggac 360
gtctggggcc aagggaccac ggtcaccgtc tcctca 396

<210> 4794
<211> 132
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4794
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Arg Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Arg Lys Tyr
            20   25   30
Ala Val Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Gly Ile Ile Pro Ile Phe Ser Thr Ala Asp Tyr Glu Glu Lys Phe
    50   55   60
Lys Gly Arg Val Thr Ile Thr Thr Asp Glu Ser Thr Gly Thr Ala Tyr
65   70   75   80
Met Glu Leu Thr Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Ala Ser Leu Ala Val Arg Gln Trp Glu Ile Arg Glu Thr Ile
            100   105   110
Ser His Tyr Tyr Phe Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val
        115   120   125
Thr Val Ser Ser
    130

<210> 4795
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4795
ggaggcacct tcaggaagta tgct 24

<210> 4796
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4796
Gly Gly Thr Phe Arg Lys Tyr Ala
1 5

<210> 4797
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4797
atcatcccta tatttagtac agca 24

<210> 4798
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4798
Ile Ile Pro Ile Phe Ser Thr Ala
1 5

<210> 4799
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4799
gcgagagcca gtctagcagt tcgtcagtgg gagataagag agacgataag ccactactac 60
ttcggtatgg acgtc 75

<210> 4800
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4800
Ala Arg Ala Ser Leu Ala Val Arg Gln Trp Glu Ile Arg Glu Thr Ile
 1   5   10   15
Ser His Tyr Tyr Phe Gly Met Asp Val
            20   25

<210> 4801
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4801
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaatta 120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaatagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatatta ctgtcaacag tatgataatc tcccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 4802
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4802
Asp Ile Leu 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 Ser Asn Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Leu Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Asp Ala Ser Asn Leu Glu Ile 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 Gln Tyr Asp Asn Leu Pro Leu

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

<210> 4803
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4803
caggacatta gcaactat 18

<210> 4804
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4804
Gln Asp Ile Ser Asn Tyr
1 5

<210> 4805
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4805
gatgcatcc 9

<210> 4806
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4806
Asp Ala Ser
1

<210> 4807
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4807
caacagtatg ataatctccc gctcact 27

<210> 4808
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4808
Gln Gln Tyr Asp Asn Leu Pro Leu Thr
1 5

<210> 4809
<211> 396
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4809
gaggtgcagc tggtggagtc tgggcctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
tcctgcaagg cttctggagg caccttcaac aagcatgcta taagctgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggaggg atcatcccta tctttggtac agcagactac 180
gcacagaagt tccagggcag aatcacgatt accacggacg aatccacgcg cacagcctac 240
atggaactgc gcagcctgag atctgaggac acggccgtat attactgtgc gagatccagt 300
ttagcaactc gtcagtggga gatattagag acgataacct actactacta cggtatggac 360
gtctggggcc aagggaccac ggtcaccgtc tcctca 396

<210> 4810
<211> 132
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4810
Glu Val Gln Leu Val Glu Ser Gly Pro Glu Val Lys Lys Pro Gly Ser

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 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Asn Lys His
            20                  25                  30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asp Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Ile Thr Ile Thr Thr Asp Glu Ser Thr Arg Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Arg Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Ser Ser Leu Ala Thr Arg Gln Trp Glu Ile Leu Glu Thr Ile
            100                 105                 110
Thr Tyr Tyr Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val
        115                 120                 125
Thr Val Ser Ser
    130
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<210> 4811
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4811
ggaggcacct tcaacaagca tgct 24

<210> 4812
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4812

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Gly Gly Thr Phe Asn Lys His Ala
 1               5
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<210> 4813
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4813

atcatcccta tctttggtac agca 24

<210> 4814
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4814
Ile Ile Pro Ile Phe Gly Thr Ala
 1 5

<210> 4815
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4815
gcgagatcca gtttagcaac tcgtcagtgg gagatattag agacgataac ctactactac 60
tacggtatgg acgtc 75

<210> 4816
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4816
Ala Arg Ser Ser Leu Ala Thr Arg Gln Trp Glu Ile Leu Glu Thr Ile
 1 5 10 15
Thr Tyr Tyr Tyr Tyr Gly Met Asp Val
 20 25

<210> 4817
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4817
gacatcgtga tgacccagtc tccctccacc ctgtctgcat ctgtaggaga cagagtcacc 60

atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg agtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacac tataatagtt attctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 4818
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4818
Asp Ile Val Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln His Tyr Asn Ser Tyr Ser Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4819
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4819
cagagtatta gtagctgg 18

<210> 4820
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4820
Gln Ser Ile Ser Ser Trp

1 5

<210> 4821
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4821
aaggcgtct 9

<210> 4822
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4822
Lys Ala Ser
1

<210> 4823
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4823
caacactata atagttattc tccgacg 27

<210> 4824
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4824
Gln His Tyr Asn Ser Tyr Ser Pro Thr
1 5

<210> 4825

<211> 396
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4825
caggtgcagc tggtggagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtt 60
tcctgtaagg cttctggagg caccttcaga agatatgcta tcagttgggt gcgacaggcc 120
cctggacaag ggctagagtg gatgggaggg atcatcccta tctttgatac agcaaactac 180
gcacagaaat tccagggcag agtcacgatt accacggacg aatccacgag cacagcctac 240
atggagctga gcagcctgag atctgaggac tcggccgtgt attactgtgc gagatccagt 300
atgacaattc gtcagtggga aatactggag aacataaact actactatta tggtatggac 360
gtctggggcc aagggtccac ggtcaccgtc tcctca 396

<210> 4826
<211> 132
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4826
Gln Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Arg Arg Tyr
            20   25   30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Gly Ile Ile Pro Ile Phe Asp Thr Ala Asn Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Thr Asp Glu Ser Thr Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Ser Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Ser Ser Met Thr Ile Arg Gln Trp Glu Ile Leu Glu Asn Ile
            100   105   110
Asn Tyr Tyr Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Ser Thr Val
        115   120   125
Thr Val Ser Ser
    130

<210> 4827
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4827
ggaggcacct tcagaagata tgct 24

<210> 4828
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4828
Gly Gly Thr Phe Arg Arg Tyr Ala
1 5

<210> 4829
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4829
atcatcccta tctttgatac agca 24

<210> 4830
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4830
Ile Ile Pro Ile Phe Asp Thr Ala
1 5

<210> 4831
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4831
gcgagatcca gtatgacaat tcgtcagtgg gaaatactgg agaacataaa ctactactat 60
tatggtatgg acgtc 75

<210> 4832
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4832
Ala Arg Ser Ser Met Thr Ile Arg Gln Trp Glu Ile Leu Glu Asn Ile
 1   5   10   15
Asn Tyr Tyr Tyr Tyr Gly Met Asp Val
            20   25

<210> 4833
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4833
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
ggaaaagccc ctaaactcct gatctatgag gcgtctagtt tagacagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctacagcct 240
gatgattttg caacttatta ctgccaacac tataatagtt attctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga   324

<210> 4834
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4834
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 Glu Ala Ser Ser Leu Asp Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln His Tyr Asn Ser Tyr Ser Pro

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

<210> 4835
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4835
cagagtatta gtagctgg 18

<210> 4836
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4836
Gln Ser Ile Ser Ser Trp
1 5

<210> 4837
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4837
gaggcgtct 9

<210> 4838
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4838
Glu Ala Ser
1

<210> 4839
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4839
caacactata atagttattc tccgacg 27

<210> 4840
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4840
Gln His Tyr Asn Ser Tyr Ser Pro Thr
1 5

<210> 4841
<211> 396
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4841
gaggtgcagc tggtggagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
tcctgcaagg cttctggagg caccttcaga agatatgctg tcagctgggt gcgacaggcc 120
cctggacaag ggcttgagtg ggtgggaggg atcatcccta tctttggtac agcaagctac 180
gcacagaagt tccagggcag agtcacgatt agcacggacg aatccacgag cacagcctac 240
atggagctga gcagcctgag atctgaggac tcggccgtgt attactgtgc gagagccagt 300
ataacaactc gtcagtggga gatactggag aacataaact actactacta cggtatggac 360
gtctggggcc aagggtccac ggtcaccgtc tcctca 396

<210> 4842
<211> 132
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4842
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Ser

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 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Arg Arg Tyr
            20                  25                  30
Ala Val Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
        35                  40                  45
Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Ser Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Ile Ser Thr Asp Glu Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Ser Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Ala Ser Ile Thr Thr Arg Gln Trp Glu Ile Leu Glu Asn Ile
            100                 105                 110
Asn Tyr Tyr Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Ser Thr Val
        115                 120                 125
Thr Val Ser Ser
    130
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<210> 4843
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4843
ggaggcacct tcagaagata tgct 24

<210> 4844
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4844

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Gly Gly Thr Phe Arg Arg Tyr Ala
 1               5
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<210> 4845
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4845

atcatcccta tctttggtac agca 24

<210> 4846
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4846
Ile Ile Pro Ile Phe Gly Thr Ala
 1 5

<210> 4847
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4847
gcgagagcca gtataacaac tcgtcagtgg gagatactgg agaacataaa ctactactac 60
tacggtatgg acgtc 75

<210> 4848
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4848
Ala Arg Ala Ser Ile Thr Thr Arg Gln Trp Glu Ile Leu Glu Asn Ile
 1 5 10 15
Asn Tyr Tyr Tyr Tyr Gly Met Asp Val
 20 25

<210> 4849
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4849
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60

atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatatta ctgtcaacag tatgataatc tcccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 4850
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4850
Asp Ile Leu 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 Ser 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 Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asn Leu Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4851
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4851
caggacatta gcaactat 18

<210> 4852
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4852
Gln Asp Ile Ser Asn Tyr

1 5

<210> 4853
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4853
gatgcatcc 9

<210> 4854
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4854
Asp Ala Ser
1

<210> 4855
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4855
caacagtatg ataatctccc gctcact 27

<210> 4856
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4856
Gln Gln Tyr Asp Asn Leu Pro Leu Thr
1 5

<210> 4857

<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4857
caggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcggt aattactact ggagctggat ccggcagccc 120
ccaggaaagg gactggagtg gattggatat atctattaca gtgagaacac caactacaac 180
ccctccctca agagtcgagt caccatatct gtggccacgt ccaagaacca gttctccctg 240
aagttggatt ctgtgaccgc cgcagacacg gccgtgtatt actgtgcgcg acatagagaa 300
gatattttga ctggttatta tagcggctat tttgactact ggggccaggg aaccctggtc 360
accgtctcct ca 372

<210> 4858
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4858
Gln Val Gln Leu Val 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 Gly 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 Glu Asn Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Ala Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Asp Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg His Arg Glu Asp Ile Leu Thr Gly Tyr Tyr Ser Gly Tyr Phe Asp
            100   105   110
Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 4859
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4859

ggtggctcca tcggtaatta ctac 24

<210> 4860
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4860
Gly Gly Ser Ile Gly Asn Tyr Tyr
1 5

<210> 4861
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4861
atctattaca gtgagaacac c 21

<210> 4862
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4862
Ile Tyr Tyr Ser Glu Asn Thr
1 5

<210> 4863
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4863
gcgcgacata gagaagatat tttgactggt tattatagcg gctattttga ctac 54

<210> 4864
<211> 18

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4864
Ala Arg His Arg Glu Asp Ile Leu Thr Gly Tyr Tyr Ser Gly Tyr Phe
 1   5   10   15
Asp Tyr

<210> 4865
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4865
gacatcctga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgttttc tacagctcca acaataagaa ctacttagct 120
tggtaccagc agaaaccagg acagcctcct aagctgctca tttactggtc atctacccgg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatatggca gtttattact gtcaccaata ttataatact 300
ccgtggacgt tcggccaagg gaccaaggtg gagatcaaac ga   342

<210> 4866
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4866
Asp Ile Leu Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Phe Tyr Ser
            20   25   30
Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Pro Pro Lys Leu Leu Ile Tyr Trp Ser 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 Met Ala Val Tyr Tyr Cys His Gln
                85   90   95
Tyr Tyr Asn Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110

Lys Arg

<210> 4867
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4867
cagagtgttt tctacagctc caacaataag aactac 36

<210> 4868
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4868
Gln Ser Val Phe Tyr Ser Ser Asn Asn Lys Asn Tyr
1 5 10

<210> 4869
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4869
tggtcatct 9

<210> 4870
<211> 3
<212> PRT
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<220>
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<400> 4870
Trp Ser Ser
1

<210> 4871
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4871
caccaatatt ataatactcc gtggacg 27

<210> 4872
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 4872
His Gln Tyr Tyr Asn Thr Pro Trp Thr
 1 5

<210> 4873
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4873
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt aattactact ggagctggat ccggcagccc 120
ccagggaggg gcctggagtg gattggatat atctatgaca gtgggagcac taactacaac 180
ccctccctca agagtcgagt catcatatca gtagacacgt ccaagaacca gttctccctg 240
aagttgagct ctgtgaccgc cgcagacacg gccgtgtatt actgtgcgag acatagagac 300
gatattttga ctggttatta taccggctat tttgactact ggggccaggg aaccacggtc 360
accgtctcct ca 372

<210> 4874
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4874
Glu Val Gln Leu Val 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 Arg Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Asp Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Ile Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg His Arg Asp Asp Ile Leu Thr Gly Tyr Tyr Thr Gly Tyr Phe Asp
            100   105   110
Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 4875
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4875
ggtggctcca tcagtaatta ctac 24

<210> 4876
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4876
Gly Gly Ser Ile Ser Asn Tyr Tyr
 1   5

<210> 4877
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4877
atctatgaca gtgggagcac t 21

<210> 4878

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

<220>
<223> synthetic

<400> 4878
Ile Tyr Asp Ser Gly Ser Thr
 1   5

<210> 4879
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4879
gcgagacata gagacgatat tttgactggt tattataccg gctattttga ctac   54

<210> 4880
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4880
Ala Arg His Arg Asp Asp Ile Leu Thr Gly Tyr Tyr Thr Gly Tyr Phe
 1   5   10   15
Asp Tyr

<210> 4881
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4881
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atcaactgca agtccagcca gaatgtttta ttcaactcca acaataagaa gtacttagcc 120
tggtaccaga agaaaccagg acagcctcca aagttactca tttactgggc atctacccgg 180
gaatccggga tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttataatact 300

ccgtggacgt tcggccaagg gaccaaggtg gagatcaaac ga 342

<210> 4882
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4882
Asp Ile Leu Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Asn Val Leu Phe Asn
            20   25   30
Ser Asn Asn Lys Lys Tyr Leu Ala Trp Tyr Gln Lys Lys Pro Gly Gln
        35   40   45
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Ile
    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 Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Asn Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys Arg

<210> 4883
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4883
cagaatgttt tattcaactc caacaataag aagtac 36

<210> 4884
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4884
Gln Asn Val Leu Phe Asn Ser Asn Asn Lys Lys Tyr
 1   5   10

<210> 4885
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4885
tgggcatct 9

<210> 4886
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4886
Trp Ala Ser
1

<210> 4887
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4887
cagcaatatt ataatactcc gtggacg 27

<210> 4888
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4888
Gln Gln Tyr Tyr Asn Thr Pro Trp Thr
1 5

<210> 4889
<211> 372
<212> DNA

<213> Artificial Sequence

<220>
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<400> 4889
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acctgcgctg tctctggtgg ctccatcagt atttactact ggagctggat ccggcagtcc 120
ccagggaagg gactggagtg gattgggtat atgtataaca gtgggagcac caactacaat 180
ccctccctca agagtcgagt ctccatatca gtagacacgt ccaagaacca gttctccctg 240
aagctgacct ctgtgaccgc cacagacacg gccgtgtatt tctgtgcgag acatagaaac 300
gatattttga ctggttatta tagcggctac ttagactact ggggccaggg aaccctggtc 360
accgtctcct ca 372

<210> 4890
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4890
Gln Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Gly Ser Ile Ser Ile Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Met Tyr Asn Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Ser Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Thr Ser Val Thr Ala Thr Asp Thr Ala Val Tyr Phe Cys Ala
                85   90   95
Arg His Arg Asn Asp Ile Leu Thr Gly Tyr Tyr Ser Gly Tyr Leu Asp
            100   105   110
Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 4891
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4891
ggtggctcca tcagtattta ctac 24

<210> 4892
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4892
Gly Gly Ser Ile Ser Ile Tyr Tyr
 1   5

<210> 4893
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4893
atgtataaca gtgggagcac c   21

<210> 4894
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4894
Met Tyr Asn Ser Gly Ser Thr
 1   5

<210> 4895
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4895
gcgagacata gaaacgatat tttgactggt tattatagcg gctacttaga ctac   54

<210> 4896
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4896
Ala Arg His Arg Asn Asp Ile Leu Thr Gly Tyr Tyr Ser Gly Tyr Leu
 1   5   10   15
Asp Tyr

<210> 4897
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4897
gacatcctga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gaatgtttta ttcaactcca acaataagaa atacttagcc 120
tggtaccagc agaaaccagg acagcctcct aagttactcg tttactgggc atctacccgg 180
gaatccggga tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttataatact 300
ccgtggacgt tcggccaagg gaccaaggtg gagatcaaac ga   342

<210> 4898
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4898
Asp Ile Leu Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Asn Val Leu Phe Asn
            20   25   30
Ser Asn Asn Lys Lys Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Pro Pro Lys Leu Leu Val Tyr Trp Ala Ser Thr Arg Glu Ser Gly Ile
    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 Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Asn Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys Arg

<210> 4899
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4899
cagaatgttt tattcaactc caacaataag aaatac 36

<210> 4900
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4900
Gln Asn Val Leu Phe Asn Ser Asn Asn Lys Lys Tyr
1 5 10

<210> 4901
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4901
tgggcatct 9

<210> 4902
<211> 3
<212> PRT
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<220>
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<400> 4902
Trp Ala Ser
1

<210> 4903
<211> 27

<212> DNA
<213> Artificial Sequence

<220>
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<400> 4903
cagcaatatt ataatactcc gtggacg 27

<210> 4904
<211> 9
<212> PRT
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<220>
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<400> 4904
Gln Gln Tyr Tyr Asn Thr Pro Trp Thr
 1 5

<210> 4905
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4905
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgaactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag catagggtat 180
gcggactctg tgaagggccg attcaccatc tccagggaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag aactgaggac acggccttgt attactgtgc aaaagatggg 300
gcagtagtag cagctgctac ttcctactgg tacttcgatc tgtggggccg tggcaccctg 360
gtcaccgtct cctca 375

<210> 4906
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4906
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
 20 25 30

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


<210> 4907
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4907
ggattcacct ttgatgatta tgcc                                          24

<210> 4908
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4908
Gly Phe Thr Phe Asp Asp Tyr Ala
 1               5


<210> 4909
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4909
attagttgga atagtggtag cata                                          24

<210> 4910
<211> 8
<212> PRT
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<213> Artificial Sequence

<220>
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<400> 4910
Ile Ser Trp Asn Ser Gly Ser Ile
 1   5

<210> 4911
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4911
gcaaaagatg gggcagtagt agcagctgct acttcctact ggtacttcga tctg   54

<210> 4912
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4912
Ala Lys Asp Gly Ala Val Val Ala Ala Ala Thr Ser Tyr Trp Tyr Phe
 1   5   10   15
Asp Leu

<210> 4913
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4913
gacatcgtga tgacccagtc tccttccacc ctgtctacat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcggaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacac tataatagtt attctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga   324

<210> 4914
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4914
Asp Ile Val Met Thr Gln Ser Pro Ser Thr Leu Ser Thr 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 Arg Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln His Tyr Asn Ser Tyr Ser Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4915
<211> 18
<212> DNA
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<220>
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<400> 4915
cagagtatta gtagctgg 18

<210> 4916
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4916
Gln Ser Ile Ser Ser Trp
 1   5

<210> 4917
<211> 9
<212> DNA

<213> Artificial Sequence

<220>
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<400> 4917
aaggcgtct 9

<210> 4918
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4918
Lys Ala Ser
 1

<210> 4919
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4919
caacactata atagttattc tccgacg 27

<210> 4920
<211> 9
<212> PRT
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<220>
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<400> 4920
Gln His Tyr Asn Ser Tyr Ser Pro Thr
 1   5

<210> 4921
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4921
gaggtgcagc tggtggagtc tgggggaggc ttggtacagt cgggggggtc cctgagactc 60
tcctgtgtag cctctggatt cacctttagc aactatgcca tgacctgggt ctgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtgatag gacatactac 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaactaggg 300
tatagcatct cgtccccttt tgactactgg ggccagggaa ccatggtcac cgtctcctca 360

<210> 4922
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4922
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ser Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Ser Asn Tyr
            20   25   30
Ala Met Thr Trp Val Cys Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Ser Gly Ser Gly Asp Arg 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 Tyr Cys
                85   90   95
Ala Lys Leu Gly Tyr Ser Ile Ser Ser Pro Phe Asp Tyr Trp Gly Gln
            100   105   110
Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 4923
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4923
ggattcacct ttagcaacta tgcc 24

<210> 4924
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4924
Gly Phe Thr Phe Ser Asn Tyr Ala
 1   5

<210> 4925
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4925
attagtggta gtggtgatag gaca   24

<210> 4926
<211> 8
<212> PRT
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<220>
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<400> 4926
Ile Ser Gly Ser Gly Asp Arg Thr
 1   5

<210> 4927
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4927
gcgaaactag ggtatagcat ctcgtcccct tttgactac   39

<210> 4928
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4928
Ala Lys Leu Gly Tyr Ser Ile Ser Ser Pro Phe Asp Tyr
 1   5   10

<210> 4929
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4929
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atcacttgcc gggcaagtca gagcatgagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaacctcct gatctacact gcctccagtt tacaaactgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagactttg caacttactt ctgtcaacag agttacggta cccctcccac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 4930
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4930
Asp Ile Leu 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 Ser Met Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Thr Ala Ser Ser Leu Gln Thr Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Ser Tyr Gly Thr Pro Pro
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4931
<211> 18
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 4931
cagagcatga gcagctat 18

<210> 4932
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4932
Gln Ser Met Ser Ser Tyr
 1   5

<210> 4933
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4933
actgcctcc 9

<210> 4934
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4934
Thr Ala Ser
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<210> 4935
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caacagagtt acggtacccc tcccact 27

<210> 4936
<211> 9
<212> PRT
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<220>
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<400> 4936
Gln Gln Ser Tyr Gly Thr Pro Pro Thr
 1   5

<210> 4937
<211> 375
<212> DNA
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<220>
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tcctgtgcag cctctggatt cacctttgat gattatgcca tgaactgggt ccggcaaggt 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag catagggtat 180
gcggactctg tgaagggccg attcaccatt tccagagaca acgccaagaa gttcctgtat 240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagatggg 300
gtagtagtag cagctgcaac ttcctactgg tacttcgatc tctggggccg tggcaccctg 360
gtcaccgtct cctca   375

<210> 4938
<211> 125
<212> PRT
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<400> 4938
Gln Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Gly Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Phe Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95

Ala Lys Asp Gly Val Val Val Ala Ala Ala Thr Ser Tyr Trp Tyr Phe
100 105 110
Asp Leu Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 4939
<211> 24
<212> DNA
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<220>
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<400> 4939
ggattcacct ttgatgatta tgcc 24

<210> 4940
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4940
Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 4941
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4941
attagttgga atagtggtag cata 24

<210> 4942
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4942
Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 4943
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4943
gcaaaagatg gggtagtagt agcagctgca acttcctact ggtacttcga tctc 54

<210> 4944
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4944
Ala Lys Asp Gly Val Val Val Ala Ala Ala Thr Ser Tyr Trp Tyr Phe
1 5 10 15
Asp Leu

<210> 4945
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4945
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagttcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 4946
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4946
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 Phe Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4947
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4947
cagagtatta gtagctgg 18

<210> 4948
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4948
Gln Ser Ile Ser Ser Trp
 1   5

<210> 4949
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4949
aaggcgtct 9

<210> 4950
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4950
Lys Ala Ser
 1

<210> 4951
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4951
caacagtata atagttattc tccgacg 27

<210> 4952
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4952
Gln Gln Tyr Asn Ser Tyr Ser Pro Thr
 1 5

<210> 4953
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4953
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgctg tctatggtgg gtccttcaat gattactact ggagctggat ccgccagtcc 120
ccagggaagg ggctggagtg gattggggaa atcaatcata gtggaagcat caactacaac 180
ccgtccctca agagtcgagt caccatatca gtggacacgt ccaagaacca cttctccctg 240
aacctgacct ctgtgaccgc cgcggacacg gctgtatatt actgtgcgag ggtcaatggg 300
aactccttgg accactgggg ccagggagcc ctggtcaccg tctcctca 348

<210> 4954
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4954
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Asn Asp Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asn His Ser Gly Ser Ile Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn His Phe Ser Leu
65   70   75   80
Asn Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Val Asn Gly Asn Ser Leu Asp His Trp Gly Gln Gly Ala Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 4955
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4955
ggtgggtcct tcaatgatta ctac   24

<210> 4956
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4956
Gly Gly Ser Phe Asn Asp Tyr Tyr
 1   5

<210> 4957
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4957
atcaatcata gtggaagcat c 21

<210> 4958
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4958
Ile Asn His Ser Gly Ser Ile
1 5

<210> 4959
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4959
gcgagggtca atgggaactc cttggaccac 30

<210> 4960
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4960
Ala Arg Val Asn Gly Asn Ser Leu Asp His
1 5 10

<210> 4961
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4961
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca ggtcattaga actgatttag gctggtatca gcagaagcca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tagaaagagg ggtctcatca 180
agattcagcg gcagtagatc tggcacagtt ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctgcaa gattacaatt acccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 4962
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4962
Asp Ile Leu 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 Val Ile Arg Thr Asp
            20   25   30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Glu Arg Gly Val Ser Ser Arg Phe Ser Gly
    50   55   60
Ser Arg Ser Gly Thr Val Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Asp Tyr Asn Tyr Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4963
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4963
caggtcatta gaactgat 18

<210> 4964
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4964
Gln Val Ile Arg Thr Asp
 1   5

<210> 4965
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4965
gctgcatcc   9

<210> 4966
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4966
Ala Ala Ser
 1

<210> 4967
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4967
ctgcaagatt acaattaccc gctcact   27

<210> 4968
<211> 9
<212> PRT
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<220>
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<400> 4968
Leu Gln Asp Tyr Asn Tyr Pro Leu Thr
 1   5

<210> 4969
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4969
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgaactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag cataggttat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag aactgaggac acggccttgt attactgtgc aaaagatggg 300
gtagtagtag cagatgctaa ttcctactgg tatttcgatc tctggggccg tggcaccatg 360
gtcaccgtct cctca   375

<210> 4970
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4970
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Gly Val Val Val Ala Asp Ala Asn Ser Tyr Trp Tyr Phe
            100   105   110
Asp Leu Trp Gly Arg Gly Thr Met Val Thr Val Ser Ser
        115   120   125

<210> 4971
<211> 24
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 4971
ggattcacct ttgatgatta tgcc 24

<210> 4972
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4972
Gly Phe Thr Phe Asp Asp Tyr Ala
 1 5

<210> 4973
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4973
attagttgga atagtggtag cata 24

<210> 4974
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4974
Ile Ser Trp Asn Ser Gly Ser Ile
 1 5

<210> 4975
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4975
gcaaaagatg gggtagtagt agcagatgct aattcctact ggtatttcga tctc 54

<210> 4976
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4976
Ala Lys Asp Gly Val Val Val Ala Asp Ala Asn Ser Tyr Trp Tyr Phe
 1   5   10   15
Asp Leu

<210> 4977
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4977
gacatcctga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt aactggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag gctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 4978
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4978
Asp Ile Leu Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Asn Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

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

<210> 4979
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4979
cagagtatta gtaactgg 18

<210> 4980
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4980
Gln Ser Ile Ser Asn Trp
1 5

<210> 4981
<211> 9
<212> DNA
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<220>
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<400> 4981
aaggcgtct 9

<210> 4982
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4982

Lys Ala Ser
 1

<210> 4983
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4983
caacagtata atagttattc tccgacg 27

<210> 4984
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4984
Gln Gln Tyr Asn Ser Tyr Ser Pro Thr
 1 5

<210> 4985
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
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<400> 4985
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattttgcca tgaactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attacttgga atagtggtgg catagggtat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctatat 240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagatggg 300
gcagtagtag cagctgctac ttcctactgg tacttcgatc tctggggccg tggcaccctg 360
gtcaccgtct cctca 375

<210> 4986
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4986
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Phe
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Thr Trp Asn Ser Gly Gly Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Gly Ala Val Val Ala Ala Ala Thr Ser Tyr Trp Tyr Phe
            100   105   110
Asp Leu Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 4987
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4987
ggattcacct ttgatgattt tgcc   24

<210> 4988
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4988
Gly Phe Thr Phe Asp Asp Phe Ala
 1   5

<210> 4989
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4989
attacttgga atagtggtgg cata 24

<210> 4990
<211> 8
<212> PRT
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<220>
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<400> 4990
Ile Thr Trp Asn Ser Gly Gly Ile
1 5

<210> 4991
<211> 54
<212> DNA
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<220>
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<400> 4991
gcaaaagatg gggcagtagt agcagctgct acttcctact ggtacttcga tctc 54

<210> 4992
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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<400> 4992
Ala Lys Asp Gly Ala Val Val Ala Ala Ala Thr Ser Tyr Trp Tyr Phe
1 5 10 15
Asp Leu

<210> 4993
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4993
gacatcctga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60

atcacttgcc gggccagtca gagtattggt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagttcct gatctatgag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 4994
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4994
Asp Ile Leu Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Gly Ser Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Phe Leu Ile
        35   40   45
Tyr Glu Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 4995
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4995
cagagtattg gtagctgg 18

<210> 4996
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4996
Gln Ser Ile Gly Ser Trp

1 5

<210> 4997
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4997
gaggcgtct 9

<210> 4998
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4998
Glu Ala Ser
1

<210> 4999
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 4999
caacagtata atagttattc tccgacg 27

<210> 5000
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5000
Gln Gln Tyr Asn Ser Tyr Ser Pro Thr
1 5

<210> 5001

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

<220>
<223> synthetic

<400> 5001
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgaactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag catagggtat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagatggg 300
gtagtagtag cagctgctac ttcctactgg tacttcgatc tctggggccg tggcaccctg 360
gtcaccgtct cctca 375

<210> 5002
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5002
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Gly Val Val Val Ala Ala Ala Thr Ser Tyr Trp Tyr Phe
            100   105   110
Asp Leu Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 5003
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5003

ggattcacct ttgatgatta tgcc 24

<210> 5004
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5004
Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 5005
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5005
attagttgga atagtggtag cata 24

<210> 5006
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5006
Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 5007
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5007
gcaaaagatg gggtagtagt agcagctgct acttcctact ggtacttcga tctc 54

<210> 5008
<211> 18

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5008
Ala Lys Asp Gly Val Val Val Ala Ala Ala Thr Ser Tyr Trp Tyr Phe
 1   5   10   15
Asp Leu

<210> 5009
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5009
gacatccaga tgacccagtc tccctccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg agtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacac tataatagtt attctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga   324

<210> 5010
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5010
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln His Tyr Asn Ser Tyr Ser Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5011
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5011
cagagtatta gtagctgg 18

<210> 5012
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5012
Gln Ser Ile Ser Ser Trp
1 5

<210> 5013
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5013
aaggcgtct 9

<210> 5014
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5014
Lys Ala Ser
1

<210> 5015
<211> 27

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5015
caacactata atagttattc tccgacg 27

<210> 5016
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5016
Gln His Tyr Asn Ser Tyr Ser Pro Thr
1 5

<210> 5017
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5017
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acctgcactg tctctggtgg ctccatcagt aattactact ggagctggat ccgggagccc 120
ccagggaagg gactggagtg gattggatat atctataaca gtgggagcac caactacaac 180
ccctccctca agagtcgagt catcatatca ggagacacgt ccaagaacca gttctccctg 240
aagttgagct ctgtgaccgc cgcagacacg gccgtgtatt actgtgcgag acatagagac 300
gatattctga ctggttatta tagcggctat tttgaccact ggggccaggg gaccctggtc 360
accgtctcct ca 372

<210> 5018
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5018
Glu Val Gln Leu Val 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 Glu Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Asn Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Ile Ile Ser Gly Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg His Arg Asp Asp Ile Leu Thr Gly Tyr Tyr Ser Gly Tyr Phe Asp
            100   105   110
His Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 5019
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5019
ggtggctcca tcagtaatta ctac 24

<210> 5020
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 5020
Gly Gly Ser Ile Ser Asn Tyr Tyr
 1   5

<210> 5021
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5021
atctataaca gtgggagcac c 21

<210> 5022
<211> 7
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 5022
Ile Tyr Asn Ser Gly Ser Thr
 1   5

<210> 5023
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5023
gcgagacata gagacgatat tctgactggt tattatagcg gctattttga ccac   54

<210> 5024
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5024
Ala Arg His Arg Asp Asp Ile Leu Thr Gly Tyr Tyr Ser Gly Tyr Phe
 1   5   10   15
Asp His

<210> 5025
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5025
gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccaagta caatatttta tacagctcca acaataagaa ctacttagct 120
tggtaccagc agaaaccggg acagtctcct aaactgctca tttactgggc atctacccgg 180
gaattcgggg tccctgaccg attcagcggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttattact gtcaacaatc ttataatact 300
ccgtacactt ttggccaggg gaccaaggtg gagatcaaac ga   342

<210> 5026
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5026
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Lys Tyr Asn Ile Leu Tyr Ser
            20   25   30
Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Ser Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Phe 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 Tyr Cys Gln Gln
                85   90   95
Ser Tyr Asn Thr Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys Arg

<210> 5027
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5027
tacaatattt tatacagctc caacaataag aactac   36

<210> 5028
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5028
Tyr Asn Ile Leu Tyr Ser Ser Asn Asn Lys Asn Tyr
 1   5   10

<210> 5029

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

<220>
<223> synthetic

<400> 5029
tgggcatct 9

<210> 5030
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5030
Trp Ala Ser
1

<210> 5031
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5031
caacaatctt ataatactcc gtacact 27

<210> 5032
<211> 9
<212> PRT
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<220>
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<400> 5032
Gln Gln Ser Tyr Asn Thr Pro Tyr Thr
1 5

<210> 5033
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5033
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgaactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag catagggtat 180
gcggactctg tgaagggccg attcaccatc tccagggaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag aactgaggac acggcctggt attactgtgc aaaagatggg 300
gcagtagtag ccgctgctac ttcccactgg tacttcgatc tgtggggccg tggcaccatg 360
gtcaccgtct cctca 375

<210> 5034
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5034
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Thr Glu Asp Thr Ala Trp Tyr Tyr Cys
                85   90   95
Ala Lys Asp Gly Ala Val Val Ala Ala Ala Thr Ser His Trp Tyr Phe
            100   105   110
Asp Leu Trp Gly Arg Gly Thr Met Val Thr Val Ser Ser
        115   120   125

<210> 5035
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5035
ggattcacct ttgatgatta tgcc 24

<210> 5036
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5036
Gly Phe Thr Phe Asp Asp Tyr Ala
 1   5

<210> 5037
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5037
attagttgga atagtggtag cata   24

<210> 5038
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5038
Ile Ser Trp Asn Ser Gly Ser Ile
 1   5

<210> 5039
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5039
gcaaaagatg gggcagtagt agccgctgct acttcccact ggtacttcga tctg   54

<210> 5040
<211> 18
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5040
Ala Lys Asp Gly Ala Val Val Ala Ala Ala Thr Ser His Trp Tyr Phe
 1   5   10   15
Asp Leu

<210> 5041
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5041
gacatccaga tgacccagtc tccttccacc ctgtctacat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcggaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacac tataatagtt attctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga   324

<210> 5042
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5042
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Thr 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 Arg Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln His Tyr Asn Ser Tyr Ser Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5043
<211> 18

<212> DNA
<213> Artificial Sequence

<220>
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<400> 5043
cagagtatta gtagctgg 18

<210> 5044
<211> 6
<212> PRT
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<220>
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<400> 5044
Gln Ser Ile Ser Ser Trp
 1 5

<210> 5045
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5045
aaggcgtct 9

<210> 5046
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5046
Lys Ala Ser
 1

<210> 5047
<211> 27
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5047
caacactata atagttattc tccgacg 27

<210> 5048
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5048
Gln His Tyr Asn Ser Tyr Ser Pro Thr
 1 5

<210> 5049
<211> 381
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5049
gaggtgcagc tggtggagtc tggaggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agttatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat 180
gcagagtccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaagac acggctgtgt attactgtgc gagagagtct 300
ctctctacgc acggtcccct ttactactac tactacggca tggacgtctg gggccaaggg 360
accacggtca ccgtctcctc a 381

<210> 5050
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5050
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Glu 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 Glu Ser Leu Ser Thr His Gly Pro Leu Tyr 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

<210> 5051
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5051
ggattcacct tcagtagtta tggc 24

<210> 5052
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5052
Gly Phe Thr Phe Ser Ser Tyr Gly
1 5

<210> 5053
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5053
atatggtatg atggaagtaa taaa 24

<210> 5054
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5054
Ile Trp Tyr Asp Gly Ser Asn Lys
 1   5

<210> 5055
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5055
gcgagagagt ctctctctac gcacggtccc ctttactact actactacgg catggacgtc 60

<210> 5056
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5056
Ala Arg Glu Ser Leu Ser Thr His Gly Pro Leu Tyr Tyr Tyr Tyr Tyr
 1   5   10   15
Gly Met Asp Val
            20

<210> 5057
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5057
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagactcacc 60
atcacttgcc gggcaagtca gaccattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatgct gcatccagtt tggaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ttgtcaagag agttacaata cccctctcac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 5058
<211> 108
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 5058
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Leu Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala 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 Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Glu Ser Tyr Asn Thr Pro Leu
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5059
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5059
cagaccatta gcagctat   18

<210> 5060
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5060
Gln Thr Ile Ser Ser Tyr
 1   5

<210> 5061
<211> 9
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5061
gctgcatcc 9

<210> 5062
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5062
Ala Ala Ser
 1

<210> 5063
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5063
caagagagtt acaatacccc tctcact 27

<210> 5064
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5064
Gln Glu Ser Tyr Asn Thr Pro Leu Thr
 1   5

<210> 5065
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5065
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60

acctgcgctg tctctggtgg ctccatcagt atttactact ggagctggat ccggcagtcc 120
ccagggaagg gactggagtg gattgggtat atgtataaca gtgggaccac caagtacaat 180
ccctccctca agagtcgagt ctccatatca gtagacacgt ccaagaacca gttctccctg 240
aagctgacct ctgtgaccgc cacagacacg gccgtgtatt tctgtgcgcg acatagaaac 300
gatcttttga ctggttatta tagcggctac ttagactact ggggccaggg aaccatggtc 360
accgtctcct ca 372

<210> 5066
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5066
Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Gly Ser Ile Ser Ile Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Met Tyr Asn Ser Gly Thr Thr Lys Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Ser Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Thr Ser Val Thr Ala Thr Asp Thr Ala Val Tyr Phe Cys Ala
                85   90   95
Arg His Arg Asn Asp Leu Leu Thr Gly Tyr Tyr Ser Gly Tyr Leu Asp
            100   105   110
Tyr Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 5067
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5067
ggtggctcca tcagtattta ctac 24

<210> 5068
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 5068
Gly Gly Ser Ile Ser Ile Tyr Tyr
 1   5

<210> 5069
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5069
atgtataaca gtgggaccac c   21

<210> 5070
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5070
Met Tyr Asn Ser Gly Thr Thr
 1   5

<210> 5071
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5071
gcgcgacata gaaacgatct tttgactggt tattatagcg gctacttaga ctac   54

<210> 5072
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5072
Ala Arg His Arg Asn Asp Leu Leu Thr Gly Tyr Tyr Ser Gly Tyr Leu
 1   5   10   15

Asp Tyr

<210> 5073
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5073
gacatcctga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcgactgca agtccagcca cagtgtttta tacagctcca acaataagaa ttacttagct 120
tggtaccagc agaaaccagg acagcctcct aaactgctca tttactgggc atctatccgg 180
gattccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcagtctga agatgtggca gtttatttct gtcagcagtc ttataatgct 300
ccgtacactt ttggccaggg gaccaaggtg gagatcaaac ga 342

<210> 5074
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5074
Asp Ile Leu Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asp Cys Lys Ser Ser His Ser Val Leu Tyr Ser
            20   25   30
Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Ile Arg Asp 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 Ser Glu Asp Val Ala Val Tyr Phe Cys Gln Gln
                85   90   95
Ser Tyr Asn Ala Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys Arg

<210> 5075
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5075
cacagtgttt tatacagctc caacaataag aattac 36

<210> 5076
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5076
His Ser Val Leu Tyr Ser Ser Asn Asn Lys Asn Tyr
 1 5 10

<210> 5077
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5077
tgggcatct 9

<210> 5078
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5078
Trp Ala Ser
 1

<210> 5079
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5079

cagcagtctt ataatgctcc gtacact 27

<210> 5080
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5080
Gln Gln Ser Tyr Asn Ala Pro Tyr Thr
 1 5

<210> 5081
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5081
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgaactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attacttgga atagtggtag catagggtat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctggaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagatggg 300
gtagtagtag cagctgctac ttcctactgg tacttcgatc tctggggccg tggcaccctg 360
gtcaccgtct cctca 375

<210> 5082
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5082
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 1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
 20 25 30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
Ser Gly Ile Thr Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
 50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65 70 75 80
Leu Glu Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys

85 90 95
Ala Lys Asp Gly Val Val Val Ala Ala Ala Thr Ser Tyr Trp Tyr Phe
100 105 110
Asp Leu Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 5083
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5083
ggattcacct ttgatgatta tgcc 24

<210> 5084
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5084
Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 5085
<211> 24
<212> DNA
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<220>
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<400> 5085
attacttgga atagtggtag cata 24

<210> 5086
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 5086
Ile Thr Trp Asn Ser Gly Ser Ile

 1   5

<210> 5087
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5087
gcaaaagatg gggtagtagt agcagctgct acttcctact ggtacttcga tctc   54

<210> 5088
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5088
Ala Lys Asp Gly Val Val Val Ala Ala Ala Thr Ser Tyr Trp Tyr Phe
 1   5   10   15
Asp Leu

<210> 5089
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5089
gacatcctga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
ggaaaagccc ctaaactcct gatctatgag gcgtctagtt tagacagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctacagcct 240
gatgattttg caacttatta ctgccaacac tataatagtt attctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga   324

<210> 5090
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5090
Asp Ile Leu 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 Glu Ala Ser Ser Leu Asp Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln His Tyr Asn Ser Tyr Ser Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5091
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5091
cagagtatta gtagctgg 18

<210> 5092
<211> 6
<212> PRT
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<220>
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<400> 5092
Gln Ser Ile Ser Ser Trp
 1   5

<210> 5093
<211> 9
<212> DNA
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<220>
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<400> 5093
gaggcgtct 9

<210> 5094
<211> 3
<212> PRT
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<220>
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<400> 5094
Glu Ala Ser
 1

<210> 5095
<211> 27
<212> DNA
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<220>
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<400> 5095
caacactata atagttattc tccgacg 27

<210> 5096
<211> 9
<212> PRT
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<220>
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<400> 5096
Gln His Tyr Asn Ser Tyr Ser Pro Thr
 1   5

<210> 5097
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5097
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattttgcca tgaactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attacttgga atagtggtag tatagggtat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctatat 240
ctgcaaatga acagtctgag aactgaggac acggccttgt attactgtgc aaaagatggg 300

gcagtagtag cagctgctac ttcctactgg tacttcgatc tctggggccg tggcaccatg 360
gtcaccgtct cctca 375

<210> 5098
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5098
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Phe
20 25 30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Gly Ile Thr Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95
Ala Lys Asp Gly Ala Val Val Ala Ala Ala Thr Ser Tyr Trp Tyr Phe
100 105 110
Asp Leu Trp Gly Arg Gly Thr Met Val Thr Val Ser Ser
115 120 125

<210> 5099
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5099
ggattcacct ttgatgattt tgcc 24

<210> 5100
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 5100
Gly Phe Thr Phe Asp Asp Phe Ala
1 5

<210> 5101
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5101
attacttgga atagtggtag tata 24

<210> 5102
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5102
Ile Thr Trp Asn Ser Gly Ser Ile
1 5

<210> 5103
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5103
gcaaaagatg gggcagtagt agcagctgct acttcctact ggtacttcga tctc 54

<210> 5104
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5104
Ala Lys Asp Gly Ala Val Val Ala Ala Ala Thr Ser Tyr Trp Tyr Phe
1 5 10 15
Asp Leu

<210> 5105
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5105
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atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatatta ctgtcaacag tatgataatc tcccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 5106
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5106
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 Ser 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 Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asn Leu Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5107
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5107
caggacatta gcaactat 18

<210> 5108
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5108
Gln Asp Ile Ser Asn Tyr
 1   5

<210> 5109
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5109
gatgcatcc   9

<210> 5110
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5110
Asp Ala Ser
 1

<210> 5111
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5111
caacagtatg ataatctccc gctcact   27

<210> 5112
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5112
Gln Gln Tyr Asp Asn Leu Pro Leu Thr
 1   5

<210> 5113
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5113
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gactttgcca tgaactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt atcacttgga atagtggtag catagggtat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ttccctatat 240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagatggg 300
gcagtagtag cagctgctac ttcctactgg tacttcgatc tctggggccg tggcaccctg 360
gtcaccgtct cctca   375

<210> 5114
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5114
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Phe
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Thr Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Gly Ala Val Val Ala Ala Ala Thr Ser Tyr Trp Tyr Phe
            100   105   110
Asp Leu Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 5115
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5115
ggattcacct ttgatgactt tgcc 24

<210> 5116
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5116
Gly Phe Thr Phe Asp Asp Phe Ala
 1 5

<210> 5117
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5117
atcacttgga atagtggtag cata 24

<210> 5118
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5118
Ile Thr Trp Asn Ser Gly Ser Ile
 1 5

<210> 5119
<211> 54
<212> DNA

<213> Artificial Sequence

<220>
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<400> 5119
gcaaaagatg gggcagtagt agcagctgct acttcctact ggtacttcga tctc 54

<210> 5120
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5120
Ala Lys Asp Gly Ala Val Val Ala Ala Ala Thr Ser Tyr Trp Tyr Phe
 1 5 10 15
Asp Leu

<210> 5121
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5121
gacatcctga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaaggtcct gatctataag gcgtctagtt tagaaggtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctct ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacac tataatagtt attctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 5122
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5122
Asp Ile Leu 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

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Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile
        35                  40                  45
Tyr Lys Ala Ser Ser Leu Glu Gly Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Ser Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln His Tyr Asn Ser Tyr Ser Pro
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 5123
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5123
cagagtatta gtagctgg 18

<210> 5124
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5124
Gln Ser Ile Ser Ser Trp
 1   5

<210> 5125
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5125
aaggcgtct 9

<210> 5126
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5126
Lys Ala Ser
 1

<210> 5127
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5127
caacactata atagttattc tccgacg 27

<210> 5128
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5128
Gln His Tyr Asn Ser Tyr Ser Pro Thr
 1   5

<210> 5129
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5129
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tcctgtgcag cctctggatt cacctttgat gattatgcca tgaactgggt ccgacaagct 120
ccagggaagg gcctggagtg ggtctcaggt attagttgga atagtggtag catagggtat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagatggg 300
gtagtagtag cagctgctac ttcctactgg tacttcgatc tctggggccg tggcaccctg 360
gtcaccgtct cctca 375

<210> 5130
<211> 125
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 5130
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Gly Val Val Val Ala Ala Ala Thr Ser Tyr Trp Tyr Phe
            100   105   110
Asp Leu Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 5131
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5131
ggattcacct ttgatgatta tgcc   24

<210> 5132
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5132
Gly Phe Thr Phe Asp Asp Tyr Ala
 1   5

<210> 5133
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5133
attagttgga atagtggtag cata 24

<210> 5134
<211> 8
<212> PRT
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<220>
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<400> 5134
Ile Ser Trp Asn Ser Gly Ser Ile
1 5

<210> 5135
<211> 54
<212> DNA
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<220>
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<400> 5135
gcaaaagatg gggtagtagt agcagctgct acttcctact ggtacttcga tctc 54

<210> 5136
<211> 18
<212> PRT
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<220>
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<400> 5136
Ala Lys Asp Gly Val Val Val Ala Ala Ala Thr Ser Tyr Trp Tyr Phe
1 5 10 15
Asp Leu

<210> 5137
<211> 324
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5137
gacatcctga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaaggtcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacac tataatagtt attctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 5138
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5138
Asp Ile Leu 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 Val Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln His Tyr Asn Ser Tyr Ser Pro
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5139
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5139
cagagtatta gtagctgg 18

<210> 5140
<211> 6
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5140
Gln Ser Ile Ser Ser Trp
 1   5

<210> 5141
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5141
aaggcgtct   9

<210> 5142
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5142
Lys Ala Ser
 1

<210> 5143
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5143
caacactata atagttattc tccgacg   27

<210> 5144
<211> 9
<212> PRT
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<220>
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<400> 5144
Gln His Tyr Asn Ser Tyr Ser Pro Thr

1 5

<210> 5145
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5145
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tcctgtgcag cctctggatt cacctttgat gattttgcca tgaactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtctcaggt attacttgga atagtggtag catagggtat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctatat 240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagatggg 300
gcagtagtag cagctgctac ttcctactgg tacttcgatc tctggggccg tggcaccctg 360
gtcaccgtct cctca 375

<210> 5146
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5146
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Phe
20 25 30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Gly Ile Thr Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
85 90 95
Ala Lys Asp Gly Ala Val Val Ala Ala Ala Thr Ser Tyr Trp Tyr Phe
100 105 110
Asp Leu Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 5147
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5147
ggattcacct ttgatgattt tgcc 24

<210> 5148
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5148
Gly Phe Thr Phe Asp Asp Phe Ala
 1 5

<210> 5149
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5149
attacttgga atagtggtag cata 24

<210> 5150
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5150
Ile Thr Trp Asn Ser Gly Ser Ile
 1 5

<210> 5151
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5151

gcaaaagatg gggcagtagt agcagctgct acttcctact ggtacttcga tctc 54

<210> 5152
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5152
Ala Lys Asp Gly Ala Val Val Ala Ala Ala Thr Ser Tyr Trp Tyr Phe
 1 5 10 15
Asp Leu

<210> 5153
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5153
gacatcctga tgacccagtc tccttccacc ctgtctacat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attctccgac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 5154
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5154
Asp Ile Leu Met Thr Gln Ser Pro Ser Thr Leu Ser Thr Ser Val Gly
 1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
            20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35 40 45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Pro
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 5155
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5155
cagagtatta gtagctgg 18

<210> 5156
<211> 6
<212> PRT
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<220>
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<400> 5156
Gln Ser Ile Ser Ser Trp
1 5

<210> 5157
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5157
aaggcgtct 9

<210> 5158
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5158
Lys Ala Ser
1

<210> 5159
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5159
caacagtata atagttattc tccgacg 27

<210> 5160
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5160
Gln Gln Tyr Asn Ser Tyr Ser Pro Thr
1 5

<210> 5161
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5161
gaggtgcagc tggtggagtc tggagcagaa gtgaaaaagc ccggggagtc tctgaagatc 60
tcctgtaagg gttctggata cacttttatc acctactgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatgggaatc atctatcctg gtgactctga taccagatat 180
agcccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatcaa caccgcctac 240
ctgcagtgga gcagcctgaa ggcctcggac accgccatgt atttctgtgc gagactcgaa 300
aaaataactt taaaggggg cggtatggac gtctgggccc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 5162
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5162

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

<210> 5163
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5163
ggatacactt ttatcaccta ctgg 24

<210> 5164
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5164
Gly Tyr Thr Phe Ile Thr Tyr Trp
 1   5

<210> 5165
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5165
atctatcctg gtgactctga tacc 24

<210> 5166
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5166
Ile Tyr Pro Gly Asp Ser Asp Thr
 1   5

<210> 5167
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5167
gcgagactcg aaaaaataac tttaaagggg ggcggtatgg acgtc   45

<210> 5168
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5168
Ala Arg Leu Glu Lys Ile Thr Leu Lys Gly Gly Gly Met Asp Val
 1   5   10   15

<210> 5169
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5169
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc ggccaagtca gaccattagc agatatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct catctatact gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta tcccgtacac ttttggccag 300

gggaccaagg tggagatcaa acga 324

<210> 5170
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5170
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 Pro Ser Gln Thr Ile Ser Arg Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Thr Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ile Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5171
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5171
cagaccatta gcagatat 18

<210> 5172
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5172
Gln Thr Ile Ser Arg Tyr
 1   5

<210> 5173

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

<220>
<223> synthetic

<400> 5173
actgcatcc 9

<210> 5174
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5174
Thr Ala Ser
1

<210> 5175
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5175
caacagagtt acagtatccc gtacact 27

<210> 5176
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5176
Gln Gln Ser Tyr Ser Ile Pro Tyr Thr
1 5

<210> 5177
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5177
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tcctgtaagg gttctggata cagttttatc acctattgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatgggaatc atctatcctg gtgactctaa taccagatat 180
agcccgtcct tccaaggcca ggtcaccatg tcagccgaca agtccatcaa caccgcctac 240
ctgcagtgga gcagcctgaa ggcctcggac accgccatat attactgtgc gagactcgaa 300
aaaataactt taaaggggg cggtatggac gtctgggccc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 5178
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5178
Gln Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Ile Thr Tyr
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Tyr Pro Gly Asp Ser Asn Thr Arg Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Met Ser Ala Asp Lys Ser Ile Asn Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Ile Tyr Tyr Cys
                85   90   95
Ala Arg Leu Glu Lys Ile Thr Leu Lys Gly Gly Gly Met Asp Val Trp
            100   105   110
Ala Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 5179
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5179
ggatacagtt ttatcaccta ttgg 24

<210> 5180
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5180
Gly Tyr Ser Phe Ile Thr Tyr Trp
 1   5

<210> 5181
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5181
atctatcctg gtgactctaa tacc   24

<210> 5182
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5182
Ile Tyr Pro Gly Asp Ser Asn Thr
 1   5

<210> 5183
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5183
gcgagactcg aaaaaataac tttaaagggg ggcggtatgg acgtc   45

<210> 5184
<211> 15
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5184
Ala Arg Leu Glu Lys Ile Thr Leu Lys Gly Gly Gly Met Asp Val
 1   5   10   15

<210> 5185
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5185
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc ggccaagtca gaccattagc cgctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatact gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ttccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 5186
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5186
Asp Ile Leu 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 Pro Ser Gln Thr Ile Ser Arg Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Thr Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ile Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5187
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5187
cagaccatta gccgctat 18

<210> 5188
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5188
Gln Thr Ile Ser Arg Tyr
 1 5

<210> 5189
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5189
actgcatcc 9

<210> 5190
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5190
Thr Ala Ser
 1

<210> 5191
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5191
caacagagtt acagtattcc gtacact 27

<210> 5192
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5192
Gln Gln Ser Tyr Ser Ile Pro Tyr Thr
1 5

<210> 5193
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5193
gaggtgcagc tggtggagtc tggagcagag gtgaaaaagc ccggggagtc tctgaagatc 60
tcctgtaagg gttctggata cagctttacc agctactgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatggggatc atctatcctg gtgactctga taccagatac 180
agcccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatgag caccgcctac 240
ctgcagtgga gcagtctgaa ggcctcggac accgccatgt attattgtgc gagactcgaa 300
gctataacta gaaaggaggg cgctatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 5194
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5194
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
1 5 10 15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
20 25 30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
50 55 60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Met Ser Thr Ala Tyr
65 70 75 80

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

<210> 5195
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5195
ggatacagct ttaccagcta ctgg 24

<210> 5196
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5196
Gly Tyr Ser Phe Thr Ser Tyr Trp
1 5

<210> 5197
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5197
atctatcctg gtgactctga tacc 24

<210> 5198
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5198

Ile Tyr Pro Gly Asp Ser Asp Thr
 1   5

<210> 5199
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5199
gcgagactcg aagctataac tagaaaggag ggcgctatgg acgtc   45

<210> 5200
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5200
Ala Arg Leu Glu Ala Ile Thr Arg Lys Glu Gly Ala Met Asp Val
 1   5   10   15

<210> 5201
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5201
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc ggacaagtca gtacattagc cgctatttaa actggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatggt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ccccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 5202
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5202
Asp Ile Leu 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 Thr Ser Gln Tyr Ile Ser Arg Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5203
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5203
cagtacatta gccgctat 18

<210> 5204
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5204
Gln Tyr Ile Ser Arg Tyr
 1   5

<210> 5205
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5205
ggtgcatcc 9

<210> 5206
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5206
Gly Ala Ser
 1

<210> 5207
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5207
caacagagtt acagtacccc gtacact 27

<210> 5208
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5208
Gln Gln Ser Tyr Ser Thr Pro Tyr Thr
 1 5

<210> 5209
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5209
caggtgcagc tggtggagtc tgggggagac ttggtacagc cgggggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttaac aactatgcca tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtgata gtggtattgg cacgtactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaaggtctg 300
ttcgggacct actacgccct ctttgactac tggggccagg gaaccccggt caccgtctcc 360

tca 363

<210> 5210
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5210
Gln Val Gln Leu Val Glu Ser Gly Gly Asp Leu Val 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 Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Ser Asp Ser Gly Ile Gly 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 Tyr Cys
                85   90   95
Ala Lys Gly Leu Phe Gly Thr Tyr Tyr Ala Leu Phe Asp Tyr Trp Gly
            100   105   110
Gln Gly Thr Pro Val Thr Val Ser Ser
        115   120

<210> 5211
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5211
ggattcacct ttaacaacta tgcc 24

<210> 5212
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5212
Gly Phe Thr Phe Asn Asn Tyr Ala
 1   5

<210> 5213
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5213
attagtgata gtggtattgg cacg 24

<210> 5214
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5214
Ile Ser Asp Ser Gly Ile Gly Thr
1 5

<210> 5215
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5215
gcgaaaggtc tgttcgggac ctactacgcc ctctttgact ac 42

<210> 5216
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5216
Ala Lys Gly Leu Phe Gly Thr Tyr Tyr Ala Leu Phe Asp Tyr
1 5 10

<210> 5217
<211> 324
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 5217
gacatcctga tgacccagtc tccatcttcc gtgtctgcat ctgttggaga cagagtcacc 60
atcacttgtc gggcgagtca ggatattagc agctggttag cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgtt gcatccaatt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttactt ttgtcaacag gctaacagtt tcccgatcac cttcggccaa 300
gggacacgac tggagattaa acga 324

<210> 5218
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5218
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser 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 Val Ala Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Ala Asn Ser Phe Pro Ile
                85   90   95
Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
            100   105

<210> 5219
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5219
caggatatta gcagctgg 18

<210> 5220
<211> 6
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 5220
Gln Asp Ile Ser Ser Trp
 1   5

<210> 5221
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5221
gttgcatcc   9

<210> 5222
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5222
Val Ala Ser
 1

<210> 5223
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5223
caacaggcta acagtttccc gatcacc   27

<210> 5224
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5224
Gln Gln Ala Asn Ser Phe Pro Ile Thr
 1   5

<210> 5225
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5225
caggtgcagc tggtggagtc tgggggaggc ttggtaaagc ctgggggtc ccttagactc 60
tcctgtgcag cctctggatt cactttcact aacgcctgga tgagctgggt ccgccagact 120
ccagggaagg ggctggagtg gattggccgt attagaagca aagctgatgg tgggacaaca 180
gactgcgctg cacccgtgaa aggcagattc accatctcaa gagatgattc aaaaaacacg 240
ctgtatctgg aaatgaatag cctgaaaatc gaggacacag ccgtttatta ttgtaccata 300
gacccccata actggaggta ctactactac gttatggacg tctggggcca agggaccacg 360
gtcaccgtct cctca   375

<210> 5226
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5226
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 Thr Asn Ala
            20   25   30
Trp Met Ser Trp Val Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Ile Arg Ser Lys Ala Asp Gly Gly Thr Thr Asp Cys Ala Ala
    50   55   60
Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
65   70   75   80
Leu Tyr Leu Glu Met Asn Ser Leu Lys Ile Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Thr Ile Asp Pro His Asn Trp Arg Tyr Tyr Tyr Tyr Val Met
            100   105   110
Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 5227
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
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<400> 5227
ggattcactt tcactaacgc ctgg 24

<210> 5228
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5228
Gly Phe Thr Phe Thr Asn Ala Trp
 1 5

<210> 5229
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5229
attagaagca aagctgatgg tgggacaaca 30

<210> 5230
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5230
Ile Arg Ser Lys Ala Asp Gly Gly Thr Thr
 1 5 10

<210> 5231
<211> 48
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5231
accatagacc cccataactg gaggtactac tactacgtta tggacgtc 48

<210> 5232
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5232
Thr Ile Asp Pro His Asn Trp Arg Tyr Tyr Tyr Tyr Val Met Asp Val
 1   5   10   15

<210> 5233
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5233
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcaataga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag tctgcagcct 240
gaagattttg caacttatta ctgtctactg cataatgatt actggacgtt cggccaaggg 300
accaaggtgg agatcaaacg a 321

<210> 5234
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5234
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Asn 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 Leu His Asn Asp Tyr Trp Thr
85 90 95
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 5235
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5235
cagggcaata gaaatgat 18

<210> 5236
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5236
Gln Gly Asn Arg Asn Asp
1 5

<210> 5237
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5237
gctgcatcc 9

<210> 5238
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5238
Ala Ala Ser

1

<210> 5239
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5239
ctactgcata atgattactg gacg 24

<210> 5240
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5240
Leu Leu His Asn Asp Tyr Trp Thr
1 5

<210> 5241
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5241
caggtgcagc tggtggagtc tggagtagag gtgaaaaagc ccggggagtc tctgaagatc 60
tcctgtaagg gttctggata cacctttacc aaatactgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatggggatc atctatcctg gtgactctga tatcagatac 180
agtccgtcct tccagggcca ggtcactatt tcagccgaca agtccaacaa caccgccttc 240
cttcactgga gcagcctgaa ggcctcggac accgccattt attactgtgc gagactcgaa 300
actataactg ggaaacaggg cggtatggtc gtctggggcc gagggaccac ggtcaccgtc 360
tcctca 366

<210> 5242
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5242
Gln Val Gln Leu Val Glu Ser Gly Val Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Lys Tyr
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Tyr Pro Gly Asp Ser Asp Ile Arg Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Asn Asn Thr Ala Phe
65   70   75   80
Leu His Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Ile Tyr Tyr Cys
                85   90   95
Ala Arg Leu Glu Thr Ile Thr Gly Lys Gln Gly Gly Met Val Val Trp
            100   105   110
Gly Arg Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 5243
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5243
ggatacacct ttaccaaata ctgg   24

<210> 5244
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5244
Gly Tyr Thr Phe Thr Lys Tyr Trp
 1   5

<210> 5245
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5245

atctatcctg gtgactctga tatc 24

<210> 5246
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5246
Ile Tyr Pro Gly Asp Ser Asp Ile
 1 5

<210> 5247
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5247
gcgagactcg aaactataac tgggaaacag ggcggtatgg tcgtc 45

<210> 5248
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5248
Ala Arg Leu Glu Thr Ile Thr Gly Lys Gln Gly Gly Met Val Val
 1 5 10 15

<210> 5249
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5249
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcaagtca gagtattagt aggtatttaa attggtatca gcagaaacca 120
gggaaagccc caaacctcct catctatggt gcatccggtt ttcaaagtgg ggtcccatca 180
aggatcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240

gaagattttg caaattatta ctgtcaacag agttacagta cccccacttt cggcggaggg 300
accaaggtgg agatcaaacg a 321

<210> 5250
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5250
Asp Ile Leu 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 Ser Ile Ser Arg Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Gly Phe Gln Ser Gly Val Pro Ser Arg Ile 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 Asn Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Thr
                85   90   95
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5251
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5251
cagagtatta gtaggtat 18

<210> 5252
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5252
Gln Ser Ile Ser Arg Tyr
 1   5

<210> 5253
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5253
ggtgcatcc 9

<210> 5254
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5254
Gly Ala Ser
1

<210> 5255
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5255
caacagagtt acagtacccc cact 24

<210> 5256
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5256
Gln Gln Ser Tyr Ser Thr Pro Thr
1 5

<210> 5257
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5257
gaggtgcagc tggtggagtc tggagcagag gtgaaaaagc ccggggagtc tctgaagatt 60
tcctgtaagg gttctggata cagttttatc acctactgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatgggaatc atctatcctg gtgactctaa taccagatat 180
agcccgtcct tccaaggcca ggtcaccatg tcagccgaca agtccatcaa caccgcctac 240
ctacagtgga gcagcctgaa ggcctcggac accgccatat attactgtgc gagactcgaa 300
aaaataactt taaaggggg cggtatggac gtctgggccc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 5258
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5258
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Ile Thr Tyr
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Tyr Pro Gly Asp Ser Asn Thr Arg Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Met Ser Ala Asp Lys Ser Ile Asn Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Ile Tyr Tyr Cys
                85   90   95
Ala Arg Leu Glu Lys Ile Thr Leu Lys Gly Gly Gly Met Asp Val Trp
            100   105   110
Ala Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 5259
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5259
ggatacagtt ttatcaccta ctgg 24

<210> 5260

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

<220>
<223> synthetic

<400> 5260
Gly Tyr Ser Phe Ile Thr Tyr Trp
 1   5

<210> 5261
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5261
atctatcctg gtgactctaa tacc   24

<210> 5262
<211> 8
<212> PRT
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<220>
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<400> 5262
Ile Tyr Pro Gly Asp Ser Asn Thr
 1   5

<210> 5263
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5263
gcgagactcg aaaaaataac tttaaagggg ggcggtatgg acgtc   45

<210> 5264
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5264
Ala Arg Leu Glu Lys Ile Thr Leu Lys Gly Gly Gly Met Asp Val
 1   5   10   15

<210> 5265
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5265
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc ggccaagtca gaccattagc cactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatact gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ttccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 5266
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5266
Asp Ile Leu 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 Pro Ser Gln Thr Ile Ser His Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Thr Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ile Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5267
<211> 18
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 5267
cagaccatta gccactat 18

<210> 5268
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5268
Gln Thr Ile Ser His Tyr
 1   5

<210> 5269
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5269
actgcatcc 9

<210> 5270
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5270
Thr Ala Ser
 1

<210> 5271
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5271
caacagagtt acagtattcc gtacact 27

<210> 5272
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5272
Gln Gln Ser Tyr Ser Ile Pro Tyr Thr
1 5

<210> 5273
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5273
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgtag cgtctggatt caccttcagt acctatggca tgcattgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcactt atttggtatg atggaagtaa taaaaattat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctggat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt atcactgtgt gagagcctcc 300
tatggttcca ggggtatgga cgtctggggc caagggacca cggtcaccgt ctcctca 357

<210> 5274
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5274
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Ser Thr Tyr
20 25 30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ala Leu Ile Trp Tyr Asp Gly Ser Asn Lys Asn Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Asp
65 70 75 80

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

<210> 5275
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5275
ggattcacct tcagtaccta tggc 24

<210> 5276
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5276
Gly Phe Thr Phe Ser Thr Tyr Gly
1 5

<210> 5277
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5277
atttggtatg atggaagtaa taaa 24

<210> 5278
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5278

Ile Trp Tyr Asp Gly Ser Asn Lys
 1   5

<210> 5279
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5279
gtgagagcct cctatggttc caggggtatg gacgtc 36

<210> 5280
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5280
Val Arg Ala Ser Tyr Gly Ser Arg Gly Met Asp Val
 1   5   10

<210> 5281
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5281
gacatcgtga tgacccagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtca gagcctcctg catagtaatg gatacaacta tttggattgg 120
tacctgcaga agccagggca gtctccacag ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttgc actgaaaatc 240
agcagagtgg aggctgagga tgttggggtt tattactgca tgcaagctct acaaactcca 300
ttcactttcg gccctgggac caaggtggag atcaaacga 339

<210> 5282
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5282
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Ala Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
                85   90   95
Leu Gln Thr Pro Phe Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys
            100   105   110
Arg

<210> 5283
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5283
cagagcctcc tgcatagtaa tggatacaac tat   33

<210> 5284
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5284
Gln Ser Leu Leu His Ser Asn Gly Tyr Asn Tyr
 1   5   10

<210> 5285
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5285

ttgggttct 9

<210> 5286
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5286
Leu Gly Ser
1

<210> 5287
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5287
atgcaagctc tacaaactcc attcact 27

<210> 5288
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5288
Met Gln Ala Leu Gln Thr Pro Phe Thr
1 5

<210> 5289
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5289
gaggtgcagc tggtggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agttactact ggaactggat ccggcagtcc 120
ccagggaagg gactggaatg gattggttat atctatgaca gtgggaacac caaatacagt 180
ccctccctca agagtcgagt caccatatca gtggacacgt ccaagaacca cttctccctg 240

aagcttatct ctgtgaccgc tgcggacacg gccgtgtatt actgtgcgag agggagttac 300
gatattttga ctgcttatta tagtccctgg ttcgactcct ggggccaggg aaccctggtc 360
accgtctcct ca 372

<210> 5290
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5290
Glu Val Gln Leu Val 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 Asn Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Asp Ser Gly Asn Thr Lys Tyr Ser Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn His Phe Ser Leu
65   70   75   80
Lys Leu Ile Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Ser Tyr Asp Ile Leu Thr Ala Tyr Tyr Ser Pro Trp Phe Asp
            100   105   110
Ser Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 5291
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5291
ggtggctcca tcagtagtta ctac 24

<210> 5292
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5292
Gly Gly Ser Ile Ser Ser Tyr Tyr

 1   5

<210> 5293
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5293
atctatgaca gtgggaacac c   21

<210> 5294
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5294
Ile Tyr Asp Ser Gly Asn Thr
 1   5

<210> 5295
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5295
gcgagaggga gttacgatat tttgactgct tattatagtc cctggttcga ctcc   54

<210> 5296
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5296
Ala Arg Gly Ser Tyr Asp Ile Leu Thr Ala Tyr Tyr Ser Pro Trp Phe
 1   5   10   15
Asp Ser

<210> 5297
<211> 342
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5297
gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gaatgtttta ttcaactcca acaataagaa gtacttagcc 120
tggtaccaga agaaaccagg acagcctcca aagttactca tttactgggc atctacccgg 180
gaatccggga tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttataatact 300
ccgtggacgt tcggccaagg gaccaaggtg gagatcaaac ga 342

<210> 5298
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5298
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Asn Val Leu Phe Asn
            20   25   30
Ser Asn Asn Lys Lys Tyr Leu Ala Trp Tyr Gln Lys Lys Pro Gly Gln
        35   40   45
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Ile
    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 Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Asn Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys Arg

<210> 5299
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5299
cagaatgttt tattcaactc caacaataag aagtac 36

<210> 5300
<211> 12
<212> PRT
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<220>
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<400> 5300
Gln Asn Val Leu Phe Asn Ser Asn Asn Lys Lys Tyr
1 5 10

<210> 5301
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5301
tgggcatct 9

<210> 5302
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5302
Trp Ala Ser
1

<210> 5303
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5303
cagcaatatt ataatactcc gtggacg 27

<210> 5304

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

<220>
<223> synthetic

<400> 5304
Gln Gln Tyr Tyr Asn Thr Pro Trp Thr
 1   5

<210> 5305
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5305
caggtgcagc tggtggagtc gggtccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcaatg tctctggtgg ctccatcagt ggttacttct ggagttggat ccggcagtcc 120
ccagggaagg aactggagtg gattggatat atctattaca gtgggagcac caactacaat 180
ccctccctcg agagtcgcgt caccatgtca gtagacacga ccaataacca ggtctccctg 240
aggctgagtt ctgtgaccgc tgaggacacg gccgtgtatt tctgtgcgag agatgatgca 300
gactacaacg gtatggacgt ctggggccaa gggaccacgg tcaccgtctc ctca   354

<210> 5306
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5306
Gln Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Asn Val Ser Gly Gly Ser Ile Ser Gly Tyr
            20   25   30
Phe Trp Ser Trp Ile Arg Gln Ser Pro Gly Lys Glu Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Glu
    50   55   60
Ser Arg Val Thr Met Ser Val Asp Thr Thr Asn Asn Gln Val Ser Leu
65   70   75   80
Arg Leu Ser Ser Val Thr Ala Glu Asp Thr Ala Val Tyr Phe Cys Ala
                85   90   95
Arg Asp Asp Ala Asp Tyr Asn Gly Met Asp Val Trp Gly Gln Gly Thr
            100   105   110
Thr Val Thr Val Ser Ser

<210> 5307
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5307
ggtggctcca tcagtggtta cttc 24

<210> 5308
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5308
Gly Gly Ser Ile Ser Gly Tyr Phe
1 5

<210> 5309
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5309
atctattaca gtgggagcac c 21

<210> 5310
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5310
Ile Tyr Tyr Ser Gly Ser Thr
1 5

<210> 5311

<211> 36
<212> DNA
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<220>
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<400> 5311
gcgagagatg atgcagacta caacggtatg gacgtc 36

<210> 5312
<211> 12
<212> PRT
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<220>
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<400> 5312
Ala Arg Asp Asp Ala Asp Tyr Asn Gly Met Asp Val
 1 5 10

<210> 5313
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5313
gacatcgtga tgacccagtc tccactctcc ctgcccgtca cccttggaca ggcggcctcc 60
atctcctgca ggtctagtca aagcctcctc tacagtgatg gaaaaatata cttgagttgg 120
tttcaccaga ggccaggcca acctccaagg cgcctaattt ataaggtttc taagcgggac 180
tctggggtcc cagacagatt cggcggcagt gggtcagaca gtgacttcac actgaaaatc 240
agcagggtgg aggctgagga tgttgggatt tattactgca tgcaaggtac acactggccg 300
ctcactttcg gcggagggac caaggtggag atcaaacga 339

<210> 5314
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5314
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
 1 5 10 15
Gln Ala Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Tyr Ser
            20 25 30

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Asp Gly Lys Ile Tyr Leu Ser Trp Phe His Gln Arg Pro Gly Gln Pro
        35                  40                  45
Pro Arg Arg Leu Ile Tyr Lys Val Ser Lys Arg Asp Ser Gly Val Pro
    50                  55                  60
Asp Arg Phe Gly Gly Ser Gly Ser Asp Ser Asp Phe Thr Leu Lys Ile
65                  70                  75                  80
Ser Arg Val Glu Ala Glu Asp Val Gly Ile Tyr Tyr Cys Met Gln Gly
                85                  90                  95
Thr His Trp Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105                 110
Arg
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<210> 5315
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5315
caaagcctcc tctacagtga tggaaaaata tac 33

<210> 5316
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5316
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Gln Ser Leu Leu Tyr Ser Asp Gly Lys Ile Tyr
 1               5                  10
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<210> 5317
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5317
aaggtttct 9

<210> 5318
<211> 3
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 5318
Lys Val Ser
 1

<210> 5319
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5319
atgcaaggta cacactggcc gctcact 27

<210> 5320
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5320
Met Gln Gly Thr His Trp Pro Leu Thr
 1   5

<210> 5321
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5321
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tcctgtgcag cctctggatt cacctttaac agctatgcca tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct gttagtaata ctggttctgg cacgtactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgcg agccgaggac acggccgtat attactgtgc gaaaggtctg 300
ttcgggacct actacgccct ctttgactac tggggccagg gaaccacggt caccgtctcc 360
tca 363

<210> 5322

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

<220>
<223> synthetic

<400> 5322
Glu Val Gln Leu Val Glu Ser Gly Gly Asp Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn 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 Ala Val Ser Asn Thr Gly Ser Gly 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 Tyr Cys
                85   90   95
Ala Lys Gly Leu Phe Gly Thr Tyr Tyr Ala Leu Phe Asp Tyr Trp Gly
            100   105   110
Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 5323
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5323
ggattcacct ttaacagcta tgcc   24

<210> 5324
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5324
Gly Phe Thr Phe Asn Ser Tyr Ala
 1   5

<210> 5325
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5325
gttagtaata ctggttctgg cacg 24

<210> 5326
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 5326
Val Ser Asn Thr Gly Ser Gly Thr
1 5

<210> 5327
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5327
gcgaaaggtc tgttcgggac ctactacgcc ctctttgact ac 42

<210> 5328
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5328
Ala Lys Gly Leu Phe Gly Thr Tyr Tyr Ala Leu Phe Asp Tyr
1 5 10

<210> 5329
<211> 324
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5329
gacatcctga tgacccagtc tccatcttcc gtgtctgcat ctgttggaga cagagtcacc 60
atcacttgtc gggcgagtca ggatattagc agttggttag cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgtt gcatccaatt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcactctct ccatcaacag cctgcagcct 240
gaagattttg caacttactt ttgtcaacag gctaacagtt tcccgatcac cttcggccaa 300
gggaccaaac tggagatcaa acga 324

<210> 5330
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5330
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser 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 Val Ala Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Asn Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Ala Asn Ser Phe Pro Ile
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
            100   105

<210> 5331
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5331
caggatatta gcagttgg 18

<210> 5332
<211> 6
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5332
Gln Asp Ile Ser Ser Trp
 1   5

<210> 5333
<211> 9
<212> DNA
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<220>
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<400> 5333
gttgcatcc 9

<210> 5334
<211> 3
<212> PRT
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<220>
<223> synthetic

<400> 5334
Val Ala Ser
 1

<210> 5335
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5335
caacaggcta acagtttccc gatcacc 27

<210> 5336
<211> 9
<212> PRT
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<220>
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<400> 5336
Gln Gln Ala Asn Ser Phe Pro Ile Thr

 1   5

<210> 5337
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5337
gaggtgcagc tggtggagtc tggagcagag gtgaaaaagc ccggggagtc tctgaagatc 60
tcctgtaagg gttctggata cagttttatc acttattgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatgggaatc atctatcctg gtgactctga taccagatac 180
agcccgtcct tccaaggcca ggtcaccatg tcagccgaca agtccatcaa taccgcctac 240
cttcagtgga gtagtctgaa ggcctcggac accgccattt attactgtgc gagactcgaa 300
aaaataactt taaaggggg cggtatggac gtctgggccc aagggaccac ggtcaccgtc 360
tcctca   366

<210> 5338
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5338
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Ile Thr Tyr
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Met Ser Ala Asp Lys Ser Ile Asn Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Ile Tyr Tyr Cys
                85   90   95
Ala Arg Leu Glu Lys Ile Thr Leu Lys Gly Gly Gly Met Asp Val Trp
            100   105   110
Ala Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 5339
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5339
ggatacagtt ttatcactta ttgg 24

<210> 5340
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5340
Gly Tyr Ser Phe Ile Thr Tyr Trp
1 5

<210> 5341
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5341
atctatcctg gtgactctga tacc 24

<210> 5342
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5342
Ile Tyr Pro Gly Asp Ser Asp Thr
1 5

<210> 5343
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5343

gcgagactcg aaaaaataac tttaaagggg ggcggtatgg acgtc 45

<210> 5344
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5344
Ala Arg Leu Glu Lys Ile Thr Leu Lys Gly Gly Gly Met Asp Val
 1   5   10   15

<210> 5345
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5345
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gaccattagc aggtatttaa attggtatca gcataaacca 120
gggaaagccc ctaaactcct gatctatact gcatcaagtt tacaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ttgtcaacag agttacaata tcccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 5346
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5346
Asp Ile Leu 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 Thr Ile Ser Arg Tyr
            20   25   30
Leu Asn Trp Tyr Gln His Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Thr Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Asn Ile Pro Tyr
                85   90   95

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

<210> 5347
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5347
cagaccatta gcaggtat 18

<210> 5348
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5348
Gln Thr Ile Ser Arg Tyr
1 5

<210> 5349
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5349
actgcatca 9

<210> 5350
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5350
Thr Ala Ser
1

<210> 5351
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5351
caacagagtt acaatatccc gtacact 27

<210> 5352
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5352
Gln Gln Ser Tyr Asn Ile Pro Tyr Thr
1 5

<210> 5353
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5353
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc agctatgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggtg gcggtagtac cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat atttctgtgc gattagagga 300
tacaactatg gtcctgacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 5354
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5354
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

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            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 Gly Gly Ser Thr 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 Ile Arg Gly Tyr Asn Tyr Gly Pro Asp Tyr Trp Gly Gln Gly Thr
            100                 105                 110
Leu Val Thr Val Ser Ser
        115
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<210> 5355
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5355
ggattcacct ttagcagcta tgcc 24

<210> 5356
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5356
Gly Phe Thr Phe Ser Ser Tyr Ala
 1   5

<210> 5357
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5357
attagtggtg gcggtagtac caca 24

<210> 5358
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5358
Ile Ser Gly Gly Gly Ser Thr Thr
 1   5

<210> 5359
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5359
gcgattagag gatacaacta tggtcctgac tac   33

<210> 5360
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5360
Ala Ile Arg Gly Tyr Asn Tyr Gly Pro Asp Tyr
 1   5   10

<210> 5361
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5361
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag tctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tacaaagtgg ggtcccgtca 180
aggttcagcg gcactggatc tggcacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacaa gattacaatt accccacgtg gacgttcggc 300
caagggacca aggtggagat caaacga   327

<210> 5362

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

<220>
<223> synthetic

<400> 5362
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
            20   25   30
Leu Val Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Thr 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 Leu Gln Asp Tyr Asn Tyr Pro Thr
                85   90   95
Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5363
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5363
cagggcatta gaaatgat 18

<210> 5364
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5364
Gln Gly Ile Arg Asn Asp
 1   5

<210> 5365
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5365
gctgcatcc 9

<210> 5366
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5366
Ala Ala Ser
1

<210> 5367
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5367
ctacaagatt acaattaccc cacgtggacg 30

<210> 5368
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5368
Leu Gln Asp Tyr Asn Tyr Pro Thr Trp Thr
1 5 10

<210> 5369
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5369
gaggtgcagc tggtggagtc tgggggagac ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttaac agctatgcca tgaactgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtggtag cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctacaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaaggtctg 300
ttcgggacct actacgccct ctttgactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 5370
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5370
Glu Val Gln Leu Val Glu Ser Gly Gly Asp Leu Val Gln Pro Gly Gly
 1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn 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 Ala Ile Ser Gly Ser Gly Gly 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 Tyr Cys
                85 90 95
Ala Lys Gly Leu Phe Gly Thr Tyr Tyr Ala Leu Phe Asp Tyr Trp Gly
            100 105 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115 120

<210> 5371
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5371
ggattcacct ttaacagcta tgcc 24

<210> 5372
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5372
Gly Phe Thr Phe Asn Ser Tyr Ala
 1   5

<210> 5373
<211> 24
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<220>
<223> synthetic

<400> 5373
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<210> 5374
<211> 8
<212> PRT
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<220>
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<400> 5374
Ile Ser Gly Ser Gly Gly Ser Thr
 1   5

<210> 5375
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5375
gcgaaaggtc tgttcgggac ctactacgcc ctctttgact ac   42

<210> 5376
<211> 14
<212> PRT
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<220>
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<400> 5376

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Ala Lys Gly Leu Phe Gly Thr Tyr Tyr Ala Leu Phe Asp Tyr
 1               5                  10
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<210> 5377
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5377
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atcacttgcc gggcaagtca gaacattagc agctatttac attggtatca gcagaaacca 120
gggaaggccc ctaaactcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagatttgg aaattaatcc tgtcaacaaa gttacagtat tccccttttt cggcggaggg 300
accaaggtgg agatcaaacg a 321

<210> 5378
<211> 107
<212> PRT
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<220>
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<400> 5378

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 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asn Ile Ser Ser Tyr
            20                  25                  30
Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Leu Glu Ile Asn Pro Val Asn Lys Val Thr Val Phe Pro Phe
                85                  90                  95
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<400> 5379
cagaacatta gcagctat 18

<210> 5380
<211> 6
<212> PRT
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<220>
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<400> 5380
Gln Asn Ile Ser Ser Tyr
1 5

<210> 5381
<211> 9
<212> DNA
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<220>
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<400> 5381
gctgcatcc 9

<210> 5382
<211> 3
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<220>
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<400> 5382
Ala Ala Ser
1

<210> 5383
<211> 24
<212> DNA
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<220>
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<400> 5383
caacaaagtt acagtattcc cctt 24

<210> 5384
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<212> PRT
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<400> 5384
Gln Gln Ser Tyr Ser Ile Pro Leu
 1   5

<210> 5385
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<212> DNA
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<220>
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<400> 5385
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tcctgtgcag cctctggatt cacctttagt agttattgga tgagttgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtggccaac ataaaacaag atggtagtga agaattctat 180
gtggactctg tgacgggccg attcaccatc tccagagacg acgccaagaa atcactgtat 240
ctgcaaatga ggagcctgag agccgaggac acggctgtgt attactgtgc gagagagagc 300
ccgtatagta gtagttggta tggaccatat tactactatg gtatggacgt ctggggccaa 360
gggaccacgg tcaccgtctc ctca   384

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<211> 128
<212> PRT
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<400> 5386
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Met 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
Trp Met Ser 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 Glu Phe Tyr Val Asp Ser Val
    50   55   60
Thr Gly Arg Phe Thr Ile Ser Arg Asp Asp Ala Lys Lys Ser Leu Tyr
65   70   75   80
Leu Gln Met Arg Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Glu Ser Pro Tyr Ser Ser Ser Trp Tyr Gly Pro Tyr Tyr Tyr

100 105 110
Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 5387
<211> 24
<212> DNA
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<220>
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<400> 5387
ggattcacct ttagtagtta ttgg 24

<210> 5388
<211> 8
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<220>
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<400> 5388
Gly Phe Thr Phe Ser Ser Tyr Trp
1 5

<210> 5389
<211> 24
<212> DNA
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<220>
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<400> 5389
ataaaacaag atggtagtga agaa 24

<210> 5390
<211> 8
<212> PRT
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<220>
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<400> 5390
Ile Lys Gln Asp Gly Ser Glu Glu
1 5

<210> 5391
<211> 63
<212> DNA
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<220>
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gtc 63

<210> 5392
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5392
Ala Arg Glu Ser Pro Tyr Ser Ser Ser Trp Tyr Gly Pro Tyr Tyr Tyr
 1 5 10 15
Tyr Gly Met Asp Val
 20

<210> 5393
<211> 321
<212> DNA
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<220>
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<400> 5393
gacatcgtga tgacccagtc tccagccacc ctatctatgt ctccagggga aagagtcacc 60
ctctcctgca gggccagtca aaatattggc atcaacttag tctggtacca gcggaaacct 120
ggccaggctc ccaggctcct catctatggt gcatccacca gggccactgg gatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccgtcagcag cctgcagtct 240
gaagattttg caatttatta ttgtcagcag tataatgact ggcccacttt cggcggaggg 300
accaaggtgg agatcaaacg a 321

<210> 5394
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5394
Asp Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Met Ser Pro Gly
 1   5   10   15
Glu Arg Val Thr Leu Ser Cys Arg Ala Ser Gln Asn Ile Gly Ile Asn
            20   25   30
Leu Val Trp Tyr Gln Arg Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Val Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Ile Tyr Tyr Cys Gln Gln Tyr Asn Asp Trp Pro Thr
                85   90   95
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5395
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5395
caaaatattg gcatcaac 18

<210> 5396
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5396
Gln Asn Ile Gly Ile Asn
 1   5

<210> 5397
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5397
ggtgcatcc 9

<210> 5398
<211> 3
<212> PRT
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<220>
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<400> 5398
Gly Ala Ser
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<210> 5399
<211> 24
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<220>
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<400> 5399
cagcagtata atgactggcc cact 24

<210> 5400
<211> 8
<212> PRT
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<220>
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<400> 5400
Gln Gln Tyr Asn Asp Trp Pro Thr
 1 5

<210> 5401
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<212> DNA
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<220>
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<400> 5401
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tcctgtaagg gttctggata cacctttacc aaatactgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatgggaatc atctatcctg gtgactctga taccagatat 180
agcccgtcct tccagggcca ggtcaccatt tcagccgaca attccatcaa caccgcctac 240
ctacactgga gcagcctgaa ggcctcggac accgccatgt attactgtgc gagactcgaa 300
actataactg gaaaacaggg cggtatggtc gtctggggcc aagggaccat ggtcaccgtc 360

tcctca 366

<210> 5402
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5402
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Lys Tyr
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Ile Ser Ala Asp Asn Ser Ile Asn Thr Ala Tyr
65   70   75   80
Leu His Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
                85   90   95
Ala Arg Leu Glu Thr Ile Thr Gly Lys Gln Gly Gly Met Val Val Trp
            100   105   110
Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 5403
<211> 24
<212> DNA
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<220>
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<400> 5403
ggatacacct ttaccaaata ctgg 24

<210> 5404
<211> 8
<212> PRT
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<220>
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<400> 5404
Gly Tyr Thr Phe Thr Lys Tyr Trp
 1   5

<210> 5405
<211> 24
<212> DNA
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<400> 5405
atctatcctg gtgactctga tacc 24

<210> 5406
<211> 8
<212> PRT
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<220>
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<400> 5406
Ile Tyr Pro Gly Asp Ser Asp Thr
1 5

<210> 5407
<211> 45
<212> DNA
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<400> 5407
gcgagactcg aaactataac tggaaaacag ggcggtatgg tcgtc 45

<210> 5408
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5408
Ala Arg Leu Glu Thr Ile Thr Gly Lys Gln Gly Gly Met Val Val
1 5 10 15

<210> 5409
<211> 324
<212> DNA

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<220>
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<400> 5409
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atctcttgtc gggcaagtca gagtattagt aggtatttaa attggtatca gcagaaacca 120
gggaaagccc caaacctcct gatctatggt gtatccggtt ttcaaagtgg ggtcccatta 180
aggatcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caaattacta ctgtcaacag agttatagta tcccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 5410
<211> 108
<212> PRT
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<220>
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<400> 5410
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Ser Ile Ser Arg Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Gly Val Ser Gly Phe Gln Ser Gly Val Pro Leu Arg Ile 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 Asn Tyr Tyr Cys Gln Gln Ser Tyr Ser Ile Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5411
<211> 18
<212> DNA
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<220>
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<400> 5411
cagagtatta gtaggtat 18

<210> 5412
<211> 6
<212> PRT

<213> Artificial Sequence

<220>
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<400> 5412
Gln Ser Ile Ser Arg Tyr
 1   5

<210> 5413
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5413
ggtgtatcc   9

<210> 5414
<211> 3
<212> PRT
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<220>
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<400> 5414
Gly Val Ser
 1

<210> 5415
<211> 27
<212> DNA
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<220>
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<400> 5415
caacagagtt atagtatccc gtacact   27

<210> 5416
<211> 9
<212> PRT
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<220>
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<400> 5416
Gln Gln Ser Tyr Ser Ile Pro Tyr Thr
 1   5

<210> 5417
<211> 354
<212> DNA
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<400> 5417
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tcctgtgcag cctctggatt cacctttagc agctatgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggtg gcggtagtac cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat atttctgtgc gattagagga 300
tacaactatg gtcctgacta ctggggccag ggaaccctgg tcaccgtctc ctca   354

<210> 5418
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5418
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 Gly Gly Ser Thr 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 Ile Arg Gly Tyr Asn Tyr Gly Pro Asp Tyr Trp Gly Gln Gly Thr
            100   105   110
Leu Val Thr Val Ser Ser
        115

<210> 5419
<211> 24
<212> DNA

<213> Artificial Sequence

<220>
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<400> 5419
ggattcacct ttagcagcta tgcc 24

<210> 5420
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5420
Gly Phe Thr Phe Ser Ser Tyr Ala
1 5

<210> 5421
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5421
attagtggtg gcggtagtac caca 24

<210> 5422
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5422
Ile Ser Gly Gly Gly Ser Thr Thr
1 5

<210> 5423
<211> 33
<212> DNA
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<220>
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<400> 5423
gcgattagag gatacaacta tggtcctgac tac 33

<210> 5424
<211> 11
<212> PRT
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<220>
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<400> 5424
Ala Ile Arg Gly Tyr Asn Tyr Gly Pro Asp Tyr
 1 5 10

<210> 5425
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<212> DNA
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<220>
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<400> 5425
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atcacttgcc gggcaagtca gggcattaga aatgatttag tctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tacaaagtgg ggtcccgtca 180
aggttcagcg gcactggatc tggcacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacaa gattacaatt accccacgtg gacgttcggc 300
caagggacca aggtggagat caaacga 327

<210> 5426
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5426
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
            20 25 30
Leu Val Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35 40 45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50 55 60
Thr 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 Leu Gln Asp Tyr Asn Tyr Pro Thr
85 90 95
Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 5427
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5427
cagggcatta gaaatgat 18

<210> 5428
<211> 6
<212> PRT
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<220>
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<400> 5428
Gln Gly Ile Arg Asn Asp
1 5

<210> 5429
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5429
gctgcatcc 9

<210> 5430
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5430
Ala Ala Ser
1

<210> 5431
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5431
ctacaagatt acaattaccc cacgtggacg 30

<210> 5432
<211> 10
<212> PRT
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<220>
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<400> 5432
Leu Gln Asp Tyr Asn Tyr Pro Thr Trp Thr
1 5 10

<210> 5433
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5433
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acctgcgctg tctatggtgg gtccttcagt acttactatt ggagctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcaatcata ctggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aagctgaact ctgtgaccgc cgcggacacg tctgtatatt actgtgcgag aggccctagt 300
acattaacta cagactacta cggtttggac gtctggggcc aagggaccat ggtcaccgtc 360
tcctca 366

<210> 5434
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5434

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 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Thr Tyr
            20                  25                  30
Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Gly Glu Ile Asn His Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50                  55                  60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65                  70                  75                  80
Lys Leu Asn Ser Val Thr Ala Ala Asp Thr Ser Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Gly Pro Ser Thr Leu Thr Thr Asp Tyr Tyr Gly Leu Asp Val Trp
            100                 105                 110
Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115                 120
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<210> 5435
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5435
ggtgggtcct tcagtactta ctat 24

<210> 5436
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5436
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Gly Gly Ser Phe Ser Thr Tyr Tyr
 1               5
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<210> 5437
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5437
atcaatcata ctggaagcac c 21

<210> 5438
<211> 7
<212> PRT
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<220>
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<400> 5438
Ile Asn His Thr Gly Ser Thr
 1   5

<210> 5439
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5439
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<210> 5440
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5440
Ala Arg Gly Pro Ser Thr Leu Thr Thr Asp Tyr Tyr Gly Leu Asp Val
 1   5   10   15

<210> 5441
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5441
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atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatatta ctgtcaacag tatgataatc tcccgctcac tttcggcgga 300

gggaccaagg tggagatcaa acga 324

<210> 5442
<211> 108
<212> PRT
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<220>
<223> synthetic

<400> 5442
Asp Ile Val 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 Ser 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 Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asn Leu Pro Leu
85 90 95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 5443
<211> 18
<212> DNA
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<220>
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<400> 5443
caggacatta gcaactat 18

<210> 5444
<211> 6
<212> PRT
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<220>
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<400> 5444
Gln Asp Ile Ser Asn Tyr
1 5

<210> 5445

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

<220>
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<400> 5445
gatgcatcc 9

<210> 5446
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5446
Asp Ala Ser
 1

<210> 5447
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5447
caacagtatg ataatctccc gctcact 27

<210> 5448
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5448
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 1   5

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<212> DNA
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<220>
<223> synthetic

<400> 5449
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tcctgtgcag cctctggatt cacctttgat gattatgcca tgacttgggt ccgccaagct 120
ccagggaagg ggctggagtg ggtctctggt attaattgga gtggtgatag aataggatat 180
gcagactctg tgaggggccg attcaccatc tccagagaca acgccaagaa ctccctattt 240
ctgcaaatga acagtctgag agccgaggac acggccttgt atcactgtgc gagagatagg 300
gatggaggtc ctccttccta cttctactac ggtatggacg tctggggcca agggaccacg 360
gtcaccgtct cctca 375

<210> 5450
<211> 125
<212> PRT
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<220>
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<400> 5450
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Asn Trp Ser Gly Asp Arg Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Arg 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 Ala Glu Asp Thr Ala Leu Tyr His Cys
                85   90   95
Ala Arg Asp Arg Asp Gly Gly Pro Pro Ser Tyr Phe Tyr Tyr Gly Met
            100   105   110
Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

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

<220>
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<400> 5451
ggattcacct ttgatgatta tgcc 24

<210> 5452
<211> 8

<212> PRT
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<220>
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<400> 5452
Gly Phe Thr Phe Asp Asp Tyr Ala
 1   5

<210> 5453
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5453
attaattgga gtggtgatag aata   24

<210> 5454
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5454
Ile Asn Trp Ser Gly Asp Arg Ile
 1   5

<210> 5455
<211> 54
<212> DNA
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<220>
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<400> 5455
gcgagagata gggatggagg tcctccttcc tacttctact acggtatgga cgtc   54

<210> 5456
<211> 18
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5456
Ala Arg Asp Arg Asp Gly Gly Pro Pro Ser Tyr Phe Tyr Tyr Gly Met
 1   5   10   15
Asp Val

<210> 5457
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5457
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcgagtca ggacattagc aactatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatatta ctgtcaacag tatgataatc tcccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 5458
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<220>
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<400> 5458
Asp Ile Leu 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 Ser 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 Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asn Leu Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5459
<211> 18

<212> DNA
<213> Artificial Sequence

<220>
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<400> 5459
caggacatta gcaactat 18

<210> 5460
<211> 6
<212> PRT
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<220>
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<400> 5460
Gln Asp Ile Ser Asn Tyr
 1   5

<210> 5461
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5461
gatgcatcc 9

<210> 5462
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5462
Asp Ala Ser
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<210> 5463
<211> 27
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5463
caacagtatg ataatctccc gtacact 27

<210> 5464
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5464
Gln Gln Tyr Asp Asn Leu Pro Tyr Thr
 1 5

<210> 5465
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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acctgcgctg tctatggtgg gtccttcaat tattactact ggacctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcactcata gtggaatcac caacaaaaac 180
ccgtccctca agagtcgagt cactatatca gtagacacgt ccaagaacca gttgtccctg 240
aaactgaact ctgtgaccgc cgcggacacg gctgtttatt actgtgcgag aggaaagatt 300
gaagcagctg tctctgattc ttttgatata tggggccaag ggacaatggt caccgtctct 360
tca 363

<210> 5466
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5466
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 1 5 10 15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Asn Tyr Tyr
 20 25 30
Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45
Gly Glu Ile Thr His Ser Gly Ile Thr Asn Lys Asn Pro Ser Leu Lys
 50 55 60

Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Leu Ser Leu
65 70 75 80
Lys Leu Asn Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95
Arg Gly Lys Ile Glu Ala Ala Val Ser Asp Ser Phe Asp Ile Trp Gly
100 105 110
Gln Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 5467
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5467
ggtgggtcct tcaattatta ctac 24

<210> 5468
<211> 8
<212> PRT
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<220>
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<400> 5468
Gly Gly Ser Phe Asn Tyr Tyr Tyr
1 5

<210> 5469
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5469
atcactcata gtggaatcac c 21

<210> 5470
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5470
Ile Thr His Ser Gly Ile Thr
 1   5

<210> 5471
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5471
gcgagaggaa agattgaagc agctgtctct gattcttttg atata   45

<210> 5472
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5472
Ala Arg Gly Lys Ile Glu Ala Ala Val Ser Asp Ser Phe Asp Ile
 1   5   10   15

<210> 5473
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5473
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ctctcctgta gggtcagtca gagtgttagc agtagttact cagcctggta ccagcagaaa 120
cctggccagg ctcccagact cctcatctat ggtgcatcca gcagggccgc tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgctgtgta ttactgtcag cagtttggtg actcattcac tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 5474
<211> 108
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5474
Asp Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Val Ser Gln Ser Val Ser Ser Ser
            20   25   30
Tyr Ser Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Ala Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Phe Gly Asp Ser Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5475
<211> 21
<212> DNA
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<400> 5475
cagagtgtta gcagtagtta c   21

<210> 5476
<211> 7
<212> PRT
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<220>
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<400> 5476
Gln Ser Val Ser Ser Ser Tyr
 1   5

<210> 5477
<211> 9
<212> DNA
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<220>
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<400> 5477

ggtgcatcc 9

<210> 5478
<211> 3
<212> PRT
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<220>
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<400> 5478
Gly Ala Ser
1

<210> 5479
<211> 24
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<400> 5479
cagcagtttg gtgactcatt cact 24

<210> 5480
<211> 8
<212> PRT
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<220>
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<400> 5480
Gln Gln Phe Gly Asp Ser Phe Thr
1 5

<210> 5481
<211> 366
<212> DNA
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<220>
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<400> 5481
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tcctgtgcag cctctggatt ccccctttaga agttatgcca tgacctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtacta gtggtggtag cacatattac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240

ctgcagatga acagcctgag agtcgatgac acggccgttt attactgtgc gaaagatctg 300
ggggccctcg gctactacta tggtattgac gtctggggcc aggggaccac ggtcaccgtc 360
tcctca 366

<210> 5482
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5482
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ala Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Pro Phe Arg Ser Tyr
            20   25   30
Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Ser Thr Ser Gly Gly 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 Val Asp Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Asp Leu Gly Ala Leu Gly Tyr Tyr Tyr Gly Ile Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 5483
<211> 24
<212> DNA
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<220>
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<400> 5483
ggattcccct ttagaagtta tgcc 24

<210> 5484
<211> 8
<212> PRT
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<220>
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<400> 5484
Gly Phe Pro Phe Arg Ser Tyr Ala

1 5

<210> 5485
<211> 24
<212> DNA
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<220>
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<400> 5485
attagtacta gtggtggtag caca 24

<210> 5486
<211> 8
<212> PRT
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<220>
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<400> 5486
Ile Ser Thr Ser Gly Gly Ser Thr
1 5

<210> 5487
<211> 45
<212> DNA
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<220>
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<400> 5487
gcgaaagatc tgggggccct cggctactac tatggtattg acgtc 45

<210> 5488
<211> 15
<212> PRT
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<400> 5488
Ala Lys Asp Leu Gly Ala Leu Gly Tyr Tyr Tyr Gly Ile Asp Val
1 5 10 15

<210> 5489

<211> 324
<212> DNA
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<220>
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<400> 5489
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ctctcctgca gggccagtca gagtgttagc aactacttag cctggtacca acagaaacct 120
ggccaggctc ccaggctcct catctatgat gcatccaaca gggccactgg catcccagcc 180
aggttcagtg gcagtgggtc tgggtcagac ttcactctca ccatcagcag ccttgagcct 240
gaggattttg cagtttattc ttgtcagcag cgtagcaact ggccgtggac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 5490
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5490
Asp Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Gly Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Asn Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Ser Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65   70   75   80
Glu Asp Phe Ala Val Tyr Ser Cys Gln Gln Arg Ser Asn Trp Pro Trp
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5491
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5491
cagagtgtta gcaactac 18

<210> 5492

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

<220>
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<400> 5492
Gln Ser Val Ser Asn Tyr
 1   5

<210> 5493
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5493
gatgcatcc   9

<210> 5494
<211> 3
<212> PRT
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<220>
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<400> 5494
Asp Ala Ser
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<210> 5495
<211> 27
<212> DNA
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<220>
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<400> 5495
cagcagcgta gcaactggcc gtggacg   27

<210> 5496
<211> 9
<212> PRT
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<220>
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<400> 5496
Gln Gln Arg Ser Asn Trp Pro Trp Thr
 1   5

<210> 5497
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<220>
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<400> 5497
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acctgcactg tctctggtgg ctccatcagt agttactact ggagctggat ccggcagccc 120
ccagggaagg gactggagtg gattgcgtat atctataaca gtgggagaat caagtacaac 180
ccctccctca agagtcgagt caccatatca ggagacacgt ccaagaacca gttctccctg 240
aagttgacct ctgtgaccgc tgcggacacg gccgtgtatt actgtgcgag agatcgcctg 300
tatagcagca gcccccactg gtacttcgat ctctggggcc gtggcaccat ggtcaccgtc 360
tcctca   366

<210> 5498
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5498
Glu Val Gln Leu Val 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
Ala Tyr Ile Tyr Asn Ser Gly Arg Ile Lys Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Gly Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Arg Leu Tyr Ser Ser Ser Pro His Trp Tyr Phe Asp Leu Trp
            100   105   110
Gly Arg Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 5499
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5499
ggtggctcca tcagtagtta ctac 24

<210> 5500
<211> 8
<212> PRT
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<220>
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<400> 5500
Gly Gly Ser Ile Ser Ser Tyr Tyr
1 5

<210> 5501
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5501
atctataaca gtgggagaat c 21

<210> 5502
<211> 7
<212> PRT
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<220>
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<400> 5502
Ile Tyr Asn Ser Gly Arg Ile
1 5

<210> 5503
<211> 48
<212> DNA
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<220>
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<400> 5503
gcgagagatc gcctgtatag cagcagcccc cactggtact tcgatctc 48

<210> 5504
<211> 16
<212> PRT
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<220>
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<400> 5504
Ala Arg Asp Arg Leu Tyr Ser Ser Ser Pro His Trp Tyr Phe Asp Leu
 1   5   10   15

<210> 5505
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5505
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gggaaagccc ctaatatcct gatctctgct gcatccagtt tgcaaagtgg ggtcccatca 180
cggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacgata ccccgatcac cttcggccaa 300
gggacacgac tggagattaa acga 324

<210> 5506
<211> 108
<212> PRT
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<220>
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<400> 5506
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Leu Gly
 1   5   10   15
Asp Arg Val Ser Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Thr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Ile Leu Ile
        35   40   45
Ser Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly

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    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 Ser Tyr Asp Thr Pro Ile
                85                  90                  95
Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
            100                 105
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<210> 5507
<211> 18
<212> DNA
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<220>
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<400> 5507
cagagcatta gcacctat 18

<210> 5508
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<212> PRT
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<220>
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<400> 5508
Gln Ser Ile Ser Thr Tyr
 1   5

<210> 5509
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5509
gctgcatcc 9

<210> 5510
<211> 3
<212> PRT
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<220>
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<400> 5510
Ala Ala Ser
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<210> 5511
<211> 27
<212> DNA
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<220>
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<400> 5511
caacagagtt acgatacccc gatcacc 27

<210> 5512
<211> 9
<212> PRT
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<220>
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<400> 5512
Gln Gln Ser Tyr Asp Thr Pro Ile Thr
 1 5

<210> 5513
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5513
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tcctgtgcag cctctggatt catctttgat gattatgcca tgatctgggt ccgccaagtt 120
ccagggaagg ggctgcagtg ggtctctggt attaattgga atggtggtaa tataggttat 180
gtagactttg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agtcgaggac acggccttgt attattgtgc gagagatagg 300
gatggaggtc ctccttcctt ttactactac ggtatggacg tctggggcca agggaccacg 360
gtcaccgtct cctca 375

<210> 5514
<211> 125
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5514

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 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ile Phe Asp Asp Tyr
            20                  25                  30
Ala Met Ile Trp Val Arg Gln Val Pro Gly Lys Gly Leu Gln Trp Val
        35                  40                  45
Ser Gly Ile Asn Trp Asn Gly Gly Asn Ile Gly Tyr Val Asp Phe 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 Val Glu Asp Thr Ala Leu Tyr Tyr Cys
                85                  90                  95
Ala Arg Asp Arg Asp Gly Gly Pro Pro Ser Phe Tyr Tyr Tyr Gly Met
            100                 105                 110
Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120                 125
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<210> 5515
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5515
ggattcatct ttgatgatta tgcc 24

<210> 5516
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5516

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Gly Phe Ile Phe Asp Asp Tyr Ala
 1               5
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<210> 5517
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5517
attaattgga atggtggtaa tata 24

<210> 5518
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5518
Ile Asn Trp Asn Gly Gly Asn Ile
 1 5

<210> 5519
<211> 54
<212> DNA
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<220>
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<400> 5519
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<210> 5520
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5520
Ala Arg Asp Arg Asp Gly Gly Pro Pro Ser Phe Tyr Tyr Tyr Gly Met
 1 5 10 15
Asp Val

<210> 5521
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5521

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ggccaggctc ccaggctcct catctatgat tcatccaaca gggccactgg catcccagcc 180
aggttcagtg gcagtgggtc tgggacagac tttactctca ccatcaccag cctagagcct 240
gaagattttg tagtttatta ctgtcagcag cgtagcacct ggccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 5522
<211> 108
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<220>
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            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Asp Ser Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Thr Ser Leu Glu Pro
65   70   75   80
Glu Asp Phe Val Val Tyr Tyr Cys Gln Gln Arg Ser Thr Trp Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5523
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<212> DNA
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<220>
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<400> 5523
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<210> 5524
<211> 6
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<220>
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<400> 5524

Gln Thr Ile Ser Asp Tyr
1 5

<210> 5525
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<400> 5525
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<210> 5526
<211> 3
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<220>
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<400> 5526
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<210> 5527
<211> 27
<212> DNA
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<220>
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<400> 5527
cagcagcgta gcacctggcc gctcact 27

<210> 5528
<211> 9
<212> PRT
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<220>
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<400> 5528
Gln Gln Arg Ser Thr Trp Pro Leu Thr
1 5

<210> 5529
<211> 375
<212> DNA
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atagggaagg gactggagtg ggtctctggt attaattgga atggtgatag cacaggttat 180
gcagactctg tgaggggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agccgaggac acggccttgt attattgtgc gagagatagg 300
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gtcaccgtct cctca 375

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

<220>
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Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met Ser Trp Val Arg Gln Gly Ile Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Asn Trp Asn Gly Asp Ser Thr Gly Tyr Ala Asp Ser Val
    50   55   60
Arg Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Arg Asp Arg Asp Gly Gly Pro Pro Ser Tyr Tyr Tyr Phe Gly Met
            100   105   110
Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

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<211> 24
<212> DNA
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<220>
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<400> 5531
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<210> 5532
<211> 8
<212> PRT
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<220>
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<400> 5532
Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 5533
<211> 24
<212> DNA
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<220>
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<400> 5533
attaattgga atggtgatag caca 24

<210> 5534
<211> 8
<212> PRT
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<220>
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<400> 5534
Ile Asn Trp Asn Gly Asp Ser Thr
1 5

<210> 5535
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5535
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<210> 5536

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

<220>
<223> synthetic

<400> 5536
Ala Arg Asp Arg Asp Gly Gly Pro Pro Ser Tyr Tyr Tyr Phe Gly Met
 1   5   10   15
Asp Val

<210> 5537
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5537
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ctctcctgca gggccagtca gaatattaac gactacttag cctggtacca acagaaacct 120
ggccaggctc ccaggctcct catctatgat gcatccaaca gggccactgg catcccagcc 180
aggttcagtg gcagtatgtc tgggacagac ttcactctca ccatcagtag cctagagact 240
gaagattttg cagtttatta ctgtcagcag cgtagcaatc ggccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

<210> 5538
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5538
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 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Asn Ile Asn Asp Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Met Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Thr
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Ser Asn Arg Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg

100 105

<210> 5539
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5539
cagaatatta acgactac 18

<210> 5540
<211> 6
<212> PRT
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<220>
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<400> 5540
Gln Asn Ile Asn Asp Tyr
1 5

<210> 5541
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5541
gatgcatcc 9

<210> 5542
<211> 3
<212> PRT
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<220>
<223> synthetic

<400> 5542
Asp Ala Ser
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<210> 5543

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

<220>
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<400> 5543
cagcagcgta gcaatcggcc gctcact 27

<210> 5544
<211> 9
<212> PRT
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<220>
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<400> 5544
Gln Gln Arg Ser Asn Arg Pro Leu Thr
1 5

<210> 5545
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5545
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acctgtgctg tctatggtgg gtccttcagt tcttcctact ggaactggat ccgccagtcc 120
ccagggaggg gactggagtg gattggggaa atctttcata gtggaaacac caactacaac 180
ccgtccctca agagtcgagt caccatatca gtagacacgt ccaagaacca cttctccctg 240
aaactgagct ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgag aggaaagata 300
gaatcggctg tttctgattc ttttgatatc tggggccaag ggacaatggt caccgtctcc 360
tca 363

<210> 5546
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5546
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
1 5 10 15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Ser Ser

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


<210> 5547
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5547
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<210> 5548
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5548
Gly Gly Ser Phe Ser Ser Ser Tyr
 1               5


<210> 5549
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5549
atctttcata gtggaaacac c                                             21

<210> 5550
<211> 7
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<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5550
Ile Phe His Ser Gly Asn Thr
 1   5

<210> 5551
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5551
gcgagaggaa agatagaatc ggctgtttct gattcttttg atatc   45

<210> 5552
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5552
Ala Arg Gly Lys Ile Glu Ser Ala Val Ser Asp Ser Phe Asp Ile
 1   5   10   15

<210> 5553
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5553
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ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtacatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagact ttgcagtgta tttctgtcag cagtatggaa gctcattcat tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 5554

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

<220>
<223> synthetic

<400> 5554
Asp Ile Val Met 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
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Thr Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Phe Cys Gln Gln Tyr Gly Ser Ser Phe
                85   90   95
Ile Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5555
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5555
cagagtgtta gcagcagcta c   21

<210> 5556
<211> 7
<212> PRT
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<220>
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<400> 5556
Gln Ser Val Ser Ser Ser Tyr
 1   5

<210> 5557
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5557
ggtacatcc 9

<210> 5558
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5558
Gly Thr Ser
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<210> 5559
<211> 24
<212> DNA
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<220>
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<400> 5559
cagcagtatg gaagctcatt catt 24

<210> 5560
<211> 8
<212> PRT
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<220>
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<400> 5560
Gln Gln Tyr Gly Ser Ser Phe Ile
1 5

<210> 5561
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5561
gaggtgcagc tggtgcagtc tgggggaggt ttgatacagc ctgggggggc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc agcgatgtca tgagttgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct atcagtagta gtggtgatag catatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcagatga atggcctgag agccgaggac acggccatat attattgtgc gatagtaggt 300
aactatggtg acttcgccag gtggttcgac ccctggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 5562
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5562
Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Ile Gln Pro Gly Gly
 1   5   10   15
Ala Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Asp
            20   25   30
Val Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Ser Ser Ser Gly Asp Ser Ile 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 Gly Leu Arg Ala Glu Asp Thr Ala Ile Tyr Tyr Cys
                85   90   95
Ala Ile Val Gly Asn Tyr Gly Asp Phe Ala Arg Trp Phe Asp Pro Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 5563
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5563
ggattcacct ttagcagcga tgtc 24

<210> 5564
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5564
Gly Phe Thr Phe Ser Ser Asp Val
 1   5

<210> 5565
<211> 24
<212> DNA
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<220>
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<400> 5565
atcagtagta gtggtgatag cata   24

<210> 5566
<211> 8
<212> PRT
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<220>
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<400> 5566
Ile Ser Ser Ser Gly Asp Ser Ile
 1   5

<210> 5567
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5567
gcgatagtag gtaactatgg tgacttcgcc aggtggttcg acccc   45

<210> 5568
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5568

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 1               5                  10                  15
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<210> 5569
<211> 324
<212> DNA
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<220>
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<400> 5569
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atcacttgcc gggcaagtca gaacattaac aactatttaa attggtatca gcagaaacca 120
gggaaagccc cgaacctcct gatctatgct gcatccattt tgcaaaatgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttactt ctgtcaacag agttacacta ccccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 5570
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5570

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 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asn Ile Asn Asn Tyr
            20                  25                  30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Ile Leu Gln Asn Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Ser Tyr Thr Thr Pro Leu
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 5571
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5571
cagaacatta acaactat 18

<210> 5572
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5572
Gln Asn Ile Asn Asn Tyr
1 5

<210> 5573
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5573
gctgcatcc 9

<210> 5574
<211> 3
<212> PRT
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<220>
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<400> 5574
Ala Ala Ser
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<210> 5575
<211> 27
<212> DNA
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<220>
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<400> 5575
caacagagtt acactacccc gctcact 27

<210> 5576
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 5576
Gln Gln Ser Tyr Thr Thr Pro Leu Thr
 1   5

<210> 5577
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5577
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acctgcgctg tctatggtgg gtccttcagt gcttcctact ggaactggat ccgccagccc 120
ccagggaggg gactggagtg gattggggaa atctttcata gtggaaacag caactacaat 180
ccgtccctca agagtcgagt caccatttca gtagacacgt ccaagaacca cttctccctg 240
aaactgagct ctgtgaccgc cgcggacacg gctatgtatt actgtgcgag aggaaagata 300
gaatcggctg tttctgatgc ttttgatatc tggggccaag ggacaatggt caccgtctct 360
tca   363

<210> 5578
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5578
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Ala Ser
            20   25   30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Arg Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Phe His Ser Gly Asn Ser Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn His Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Met Tyr Tyr Cys Ala
                85   90   95
Arg Gly Lys Ile Glu Ser Ala Val Ser Asp Ala Phe Asp Ile Trp Gly

100 105 110
Gln Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 5579
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5579
ggtgggtcct tcagtgcttc ctac 24

<210> 5580
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5580
Gly Gly Ser Phe Ser Ala Ser Tyr
1 5

<210> 5581
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5581
atctttcata gtggaaacag c 21

<210> 5582
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5582
Ile Phe His Ser Gly Asn Ser
1 5

<210> 5583
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5583
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<210> 5584
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5584
Ala Arg Gly Lys Ile Glu Ser Ala Val Ser Asp Ala Phe Asp Ile
1 5 10 15

<210> 5585
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5585
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cctggccagg ctcccaggct cctcatttat ggtacatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaggatt ttgcagtata tttctgtcag cagtatggta actcattcat tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 5586
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5586
Asp Ile Val Met 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
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Thr Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Phe Cys Gln Gln Tyr Gly Asn Ser Phe
                85   90   95
Ile Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5587
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5587
cagagtgtta gcagcagcta c 21

<210> 5588
<211> 7
<212> PRT
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<220>
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<400> 5588
Gln Ser Val Ser Ser Ser Tyr
 1   5

<210> 5589
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5589
ggtacatcc 9

<210> 5590
<211> 3
<212> PRT

<213> Artificial Sequence

<220>
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<400> 5590
Gly Thr Ser
 1

<210> 5591
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5591
cagcagtatg gtaactcatt catt 24

<210> 5592
<211> 8
<212> PRT
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<220>
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<400> 5592
Gln Gln Tyr Gly Asn Ser Phe Ile
 1 5

<210> 5593
<211> 363
<212> DNA
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<220>
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<400> 5593
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acctgcgctg tctatggtgg gtccttcagt tattactact ggacctggat ccgtcagccc 120
ccagggaaga gactggagtg gattggggag atcaatcata gtggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatatca gttgacacgc ccaagagcca gttctccctg 240
aagctgatct ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgag aggaataata 300
acatcagctg tctctgatgc ttttgatatt tggggccaag ggacaatggt caccgtctcc 360
tca 363

<210> 5594

<211> 121
<212> PRT
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<400> 5594
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 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Tyr Tyr
            20   25   30
Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys Arg Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asn His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Pro Lys Ser Gln Phe Ser Leu
65   70   75   80
Lys Leu Ile Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Ile Ile Thr Ser Ala Val Ser Asp Ala Phe Asp Ile Trp Gly
            100   105   110
Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 5595
<211> 24
<212> DNA
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<220>
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<400> 5595
ggtgggtcct tcagttatta ctac   24

<210> 5596
<211> 8
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<220>
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<400> 5596
Gly Gly Ser Phe Ser Tyr Tyr Tyr
 1   5

<210> 5597
<211> 21

<212> DNA
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<220>
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<400> 5597
atcaatcata gtggaagcac c 21

<210> 5598
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<212> PRT
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<220>
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<400> 5598
Ile Asn His Ser Gly Ser Thr
1 5

<210> 5599
<211> 45
<212> DNA
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<220>
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<400> 5599
gcgagaggaa taataacatc agctgtctct gatgcttttg atatt 45

<210> 5600
<211> 15
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<213> Artificial Sequence

<220>
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<400> 5600
Ala Arg Gly Ile Ile Thr Ser Ala Val Ser Asp Ala Phe Asp Ile
1 5 10 15

<210> 5601
<211> 324
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5601
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ctctcctgca gggccagtca gagtgttagc agtacctact tagcctggta ccagcagaga 120
cctggccagg ctcccaggct cctcatctat ggaacatcca ctagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag caatttggtg actcattcac tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 5602
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5602
Asp Ile Val Met 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 Thr
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Arg Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Thr Ser Thr Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Phe Gly Asp Ser Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5603
<211> 21
<212> DNA
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<220>
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<400> 5603
cagagtgtta gcagtaccta c 21

<210> 5604
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<220>

<223> synthetic

<400> 5604
Gln Ser Val Ser Ser Thr Tyr
 1   5

<210> 5605
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5605
ggaacatcc   9

<210> 5606
<211> 3
<212> PRT
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<220>
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<400> 5606
Gly Thr Ser
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<210> 5607
<211> 24
<212> DNA
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<220>
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<400> 5607
cagcaatttg gtgactcatt cact   24

<210> 5608
<211> 8
<212> PRT
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<220>
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<400> 5608
Gln Gln Phe Gly Asp Ser Phe Thr

 1   5

<210> 5609
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5609
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tcctgtgcag cctctggatt cacctttagc agagatgtct tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcactt attagtggta gtggtgataa catatattat 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcagatga atagcctgag agccgaggac acggccatat attattgtgc gatagttggg 300
aactatggtg acttcgccag gtggttcgac ccctggggcc agggaaccat ggtcaccgtc 360
tcctca   366

<210> 5610
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5610
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ile Gln Pro Gly Gly
 1   5   10   15
Ala Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Arg Asp
            20   25   30
Val Leu Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Leu Ile Ser Gly Ser Gly Asp Asn Ile 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 Ile Tyr Tyr Cys
                85   90   95
Ala Ile Val Gly Asn Tyr Gly Asp Phe Ala Arg Trp Phe Asp Pro Trp
            100   105   110
Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 5611
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5611
ggattcacct ttagcagaga tgtc 24

<210> 5612
<211> 8
<212> PRT
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<220>
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<400> 5612
Gly Phe Thr Phe Ser Arg Asp Val
1 5

<210> 5613
<211> 24
<212> DNA
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<220>
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<400> 5613
attagtggta gtggtgataa cata 24

<210> 5614
<211> 8
<212> PRT
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<220>
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<400> 5614
Ile Ser Gly Ser Gly Asp Asn Ile
1 5

<210> 5615
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5615

gcgatagttg ggaactatgg tgacttcgcc aggtggttcg acccc 45

<210> 5616
<211> 15
<212> PRT
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<220>
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<400> 5616
Ala Ile Val Gly Asn Tyr Gly Asp Phe Ala Arg Trp Phe Asp Pro
1 5 10 15

<210> 5617
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5617
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atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcggaaacca 120
gggaaagccc cgaacctcct gatctatgct gcatccattt tgcaaaatgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttactt ctgtcaacag agttacacta ccccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 5618
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5618
Asp Ile Leu 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 Ser Ile Ser Ser Tyr
20 25 30
Leu Asn Trp Tyr Gln Arg Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
35 40 45
Tyr Ala Ala Ser Ile Leu Gln Asn Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Ser Tyr Thr Thr Pro Leu
85 90 95

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

<210> 5619
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5619
cagagcatta gcagctat 18

<210> 5620
<211> 6
<212> PRT
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<220>
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<400> 5620
Gln Ser Ile Ser Ser Tyr
1 5

<210> 5621
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5621
gctgcatcc 9

<210> 5622
<211> 3
<212> PRT
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<220>
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<400> 5622
Ala Ala Ser
1

<210> 5623
<211> 27
<212> DNA
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<220>
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<400> 5623
caacagagtt acactacccc gctcact 27

<210> 5624
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 5624
Gln Gln Ser Tyr Thr Thr Pro Leu Thr
1 5

<210> 5625
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5625
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acctgcgctg tctatggtgg gtccttcagt acttactatt ggagctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcaatcata ctggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aagctgaact ctgtgaccgc cgcggacacg tctgtatatt actgtgcgag aggccctagt 300
acattaacta cagactacta cggtttggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 5626
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5626
Gln Val Gln Leu Val Glu Ser Gly Ala Gly Leu Leu Lys Pro Ser Glu
1 5 10 15

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Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Thr Tyr
            20                  25                  30
Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Gly Glu Ile Asn His Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50                  55                  60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65                  70                  75                  80
Lys Leu Asn Ser Val Thr Ala Ala Asp Thr Ser Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Gly Pro Ser Thr Leu Thr Thr Asp Tyr Tyr Gly Leu Asp Val Trp
            100                 105                 110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120
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<210> 5627
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5627
ggtgggtcct tcagtactta ctat 24

<210> 5628
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5628
Gly Gly Ser Phe Ser Thr Tyr Tyr
 1   5

<210> 5629
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5629
atcaatcata ctggaagcac c 21

<210> 5630

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

<220>
<223> synthetic

<400> 5630
Ile Asn His Thr Gly Ser Thr
 1   5

<210> 5631
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5631
gcgagaggcc ctagtacatt aactacagac tactacggtt tggacgtc   48

<210> 5632
<211> 16
<212> PRT
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<220>
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<400> 5632
Ala Arg Gly Pro Ser Thr Leu Thr Thr Asp Tyr Tyr Gly Leu Asp Val
 1   5   10   15

<210> 5633
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5633
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ctctcctgca gggccagtca gagtattagc agcagctact tagcctggta ccagcaaaaa 120
cctggccagg ctcccaggct cctcatctat gatgcatcca gcaggtccac tgacatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcactgta ttactgtcag cagtatggtg gctcaccatt cactttcggc 300
cctgggacca aggtggagat caaacga   327

<210> 5634
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5634
Asp Ile Val Met 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 Ile Ser Ser Ser
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Asp Ala Ser Ser Arg Ser Thr Asp Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Leu Tyr Tyr Cys Gln Gln Tyr Gly Gly Ser Pro
                85   90   95
Phe Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5635
<211> 21
<212> DNA
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<220>
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<400> 5635
cagagtatta gcagcagcta c   21

<210> 5636
<211> 7
<212> PRT
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<220>
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<400> 5636
Gln Ser Ile Ser Ser Ser Tyr
 1   5

<210> 5637
<211> 9
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 5637
gatgcatcc 9

<210> 5638
<211> 3
<212> PRT
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<220>
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<400> 5638
Asp Ala Ser
 1

<210> 5639
<211> 27
<212> DNA
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<220>
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<400> 5639
cagcagtatg gtggctcacc attcact 27

<210> 5640
<211> 9
<212> PRT
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<220>
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<400> 5640
Gln Gln Tyr Gly Gly Ser Pro Phe Thr
 1   5

<210> 5641
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5641
caggtgcagc tggtgcagtg gggcgcagga ctgttgatgc cttcggagac cctgtccctc 60
acctgcgctg tctctggtgg gtccttcagt tattactact ggacctggat ccgccagccc 120
ccagggaagg gtctggagtg gattggggag atcaatcata gtggaagcac caactacaac 180
ccgtccctca agagtcgaat caccatatca gtagacacgt ccaagaacca gttctccctg 240
aaactgaact ctgtgaccgc cgcggacacg gctgtgtatt attgtgcgag aggacagata 300
acagcagctg tctctgattc ttttgatgtc tggggccaag ggacaatggt caccgtctcc 360
tca 363

<210> 5642
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5642
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Met Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Gly Ser Phe Ser Tyr Tyr
            20   25   30
Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asn His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Ile Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Asn Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Gln Ile Thr Ala Ala Val Ser Asp Ser Phe Asp Val Trp Gly
            100   105   110
Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 5643
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5643
ggtgggtcct tcagttatta ctac 24

<210> 5644
<211> 8
<212> PRT
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<220>
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<400> 5644
Gly Gly Ser Phe Ser Tyr Tyr Tyr
 1   5

<210> 5645
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5645
atcaatcata gtggaagcac c   21

<210> 5646
<211> 7
<212> PRT
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<220>
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<400> 5646
Ile Asn His Ser Gly Ser Thr
 1   5

<210> 5647
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5647
gcgagaggac agataacagc agctgtctct gattcttttg atgtc   45

<210> 5648
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5648
Ala Arg Gly Gln Ile Thr Ala Ala Val Ser Asp Ser Phe Asp Val
 1   5   10   15

<210> 5649
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5649
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagtcacc 60
ctctcctgta gggccagtca gtttgttagc agcagctatt cagcctggta ccagcagaga 120
cctggccagc ctcccagact cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttattgtcaa cagtatggta gcgcattcat tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 5650
<211> 108
<212> PRT
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<220>
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<400> 5650
Asp Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Val Thr Leu Ser Cys Arg Ala Ser Gln Phe Val Ser Ser Ser
            20   25   30
Tyr Ser Ala Trp Tyr Gln Gln Arg Pro Gly Gln Pro Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ala Phe
                85   90   95
Ile Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5651
<211> 21
<212> DNA
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<220>

<223> synthetic

<400> 5651
cagtttgtta gcagcagcta t 21

<210> 5652
<211> 7
<212> PRT
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<220>
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<400> 5652
Gln Phe Val Ser Ser Ser Tyr
1 5

<210> 5653
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5653
ggtgcatcc 9

<210> 5654
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5654
Gly Ala Ser
1

<210> 5655
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5655
caacagtatg gtagcgcatt catt 24

<210> 5656
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5656
Gln Gln Tyr Gly Ser Ala Phe Ile
 1   5

<210> 5657
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5657
caggtgcagc tggtggagtc tgggggaggc gtggtgcggc ctgggggGTC cctgagactc 60
tcctgtgcag cctctggatt cacctttgat gattatgcca tgagctgggt ccgccaagtt 120
ccagggaagg ggctggagtg ggtctctggt attaattgga atggtgatag tagaggttat 180
gcagactctg tgaggggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agccgaggac acggccttgt attattgtgc gagagatagg 300
gatggaggtc ctccttccta ttactattat gggatggacg tctggggcca agggaccacg 360
gtcaccgtct cctca   375

<210> 5658
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5658
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Ala Met Ser Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Asn Trp Asn Gly Asp Ser Arg Gly Tyr Ala Asp Ser Val
    50   55   60
Arg Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95

Ala Arg Asp Arg Asp Gly Gly Pro Pro Ser Tyr Tyr Tyr Tyr Gly Met
100 105 110
Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 5659
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5659
ggattcacct ttgatgatta tgcc 24

<210> 5660
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5660
Gly Phe Thr Phe Asp Asp Tyr Ala
1 5

<210> 5661
<211> 24
<212> DNA
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<220>
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<400> 5661
attaattgga atggtgatag taga 24

<210> 5662
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5662
Ile Asn Trp Asn Gly Asp Ser Arg
1 5

<210> 5663
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5663
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<210> 5664
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5664
Ala Arg Asp Arg Asp Gly Gly Pro Pro Ser Tyr Tyr Tyr Tyr Gly Met
1 5 10 15
Asp Val

<210> 5665
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5665
gacatcgtga tgacccagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gaatattaac gactatttag cctggtacca acagaaacct 120
ggccaggctc ccaggctcct catctatgat gcatccaaca gggccactgg catcccagcc 180
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagtag cctagagcct 240
gaagattttg cagtttatta ctgtcagcag cgtagcaatc ggccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 5666
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<220>
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<400> 5666
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 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Asn Ile Asn Asp Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Ser Asn Arg Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5667
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<220>
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<400> 5667
cagaatatta acgactat 18

<210> 5668
<211> 6
<212> PRT
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<220>
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<400> 5668
Gln Asn Ile Asn Asp Tyr
 1   5

<210> 5669
<211> 9
<212> DNA
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<220>
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<400> 5669
gatgcatcc 9

<210> 5670
<211> 3
<212> PRT
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<220>
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<400> 5670
Asp Ala Ser
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<210> 5671
<211> 27
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<220>
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<400> 5671
cagcagcgta gcaatcggcc gctcact 27

<210> 5672
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<400> 5672
Gln Gln Arg Ser Asn Arg Pro Leu Thr
 1 5

<210> 5673
<211> 363
<212> DNA
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<400> 5673
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acctgtgctg tctatggtgg gtccttcagt tcttcctact ggaactggat ccgccagccc 120
ccagggaggg gactggagtg gattggggaa atctttcata gtggaaacac caactacaac 180
ccgtccctca agagtcgagt caccatatca gtagacacgt ccaagaacca cttctccctg 240
aaactgagct ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgag aggaaagata 300
gaatcggctg tttctgattc ttttgatatc tggggccaag ggacaatggt caccgtctcc 360

tca 363

<210> 5674
<211> 121
<212> PRT
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<220>
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<400> 5674
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1 5 10 15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Ser Ser
20 25 30
Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Arg Gly Leu Glu Trp Ile
35 40 45
Gly Glu Ile Phe His Ser Gly Asn Thr Asn Tyr Asn Pro Ser Leu Lys
50 55 60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn His Phe Ser Leu
65 70 75 80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95
Arg Gly Lys Ile Glu Ser Ala Val Ser Asp Ser Phe Asp Ile Trp Gly
100 105 110
Gln Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 5675
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5675
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<210> 5676
<211> 8
<212> PRT
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<400> 5676
Gly Gly Ser Phe Ser Ser Ser Tyr
1 5

<210> 5677
<211> 21
<212> DNA
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<220>
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<400> 5677
atctttcata gtggaaacac c 21

<210> 5678
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<212> PRT
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<400> 5678
Ile Phe His Ser Gly Asn Thr
1 5

<210> 5679
<211> 45
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<400> 5679
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<210> 5680
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<400> 5680
Ala Arg Gly Lys Ile Glu Ser Ala Val Ser Asp Ser Phe Asp Ile
1 5 10 15

<210> 5681
<211> 324
<212> DNA

<213> Artificial Sequence

<220>
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ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtacatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagact ttgcagtgta tttctgtcag cagtatggta gctcattcat tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 5682
<211> 108
<212> PRT
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<220>
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<400> 5682
Asp Ile Val Met 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
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Thr Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Phe Cys Gln Gln Tyr Gly Ser Ser Phe
                85   90   95
Ile Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5683
<211> 21
<212> DNA
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<400> 5683
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<210> 5684
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<212> PRT

<213> Artificial Sequence

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<400> 5684
Gln Ser Val Ser Ser Ser Tyr
 1   5

<210> 5685
<211> 9
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<400> 5685
ggtacatcc   9

<210> 5686
<211> 3
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<400> 5686
Gly Thr Ser
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<210> 5687
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<400> 5687
cagcagtatg gtagctcatt catt   24

<210> 5688
<211> 8
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<400> 5688
Gln Gln Tyr Gly Ser Ser Phe Ile
 1   5

<210> 5689
<211> 366
<212> DNA
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ccaggaaagg ggctggagtg ggtctcagct attagtagta gtggtggtag ttcatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacactttat 240
ctgcaaatga acagtctgag agccgaggac acggccgtat attactgtgc gaaagatctg 300
ggggccctcg gctactacta cggtattgac gtctggggcc aagggaccat ggtcaccgtc 360
tcctca   366

<210> 5690
<211> 122
<212> PRT
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<220>
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<400> 5690
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Met 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 Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Ser Ser Ser Gly Gly Ser Ser Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Asp Leu Gly Ala Leu Gly Tyr Tyr Tyr Gly Ile Asp Val Trp
            100   105   110
Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 5691
<211> 24

<212> DNA
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<220>
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<400> 5691
ggattcacct ttagcagtta tgcc 24

<210> 5692
<211> 8
<212> PRT
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<220>
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<400> 5692
Gly Phe Thr Phe Ser Ser Tyr Ala
 1 5

<210> 5693
<211> 24
<212> DNA
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<220>
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<400> 5693
attagtagta gtggtggtag ttca 24

<210> 5694
<211> 8
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<220>
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<400> 5694
Ile Ser Ser Ser Gly Gly Ser Ser
 1 5

<210> 5695
<211> 45
<212> DNA
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<400> 5695
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<210> 5696
<211> 15
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<220>
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<400> 5696
Ala Lys Asp Leu Gly Ala Leu Gly Tyr Tyr Tyr Gly Ile Asp Val
 1 5 10 15

<210> 5697
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5697
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ctctcctgca gggccagtca gagtgttagc aactacttag cctggtacca acagagacct 120
ggccaggctc ccaggctcct catctataat gcatccaaca ggtcccctgg catccaagcc 180
aggttcagtg gcagtggttc tggaacagac ttcactctca ccatcagcag actggaacct 240
gaagattttg cagtttattc ctgtcagcag cgtagcaact ggccgtggac attcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 5698
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5698
Asp Ile Val Met Thr Gln Ser Pro Ala 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 Asn Tyr
            20 25 30
Leu Ala Trp Tyr Gln Gln Arg Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35 40 45
Tyr Asn Ala Ser Asn Arg Ser Pro Gly Ile Gln Ala Arg Phe Ser Gly
    50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro

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

<210> 5699
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5699
cagagtgtta gcaactac 18

<210> 5700
<211> 6
<212> PRT
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<220>
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<400> 5700
Gln Ser Val Ser Asn Tyr
1 5

<210> 5701
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5701
aatgcatcc 9

<210> 5702
<211> 3
<212> PRT
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<220>
<223> synthetic

<400> 5702
Asn Ala Ser

1

<210> 5703
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5703
cagcagcgta gcaactggcc gtggaca 27

<210> 5704
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 5704
Gln Gln Arg Ser Asn Trp Pro Trp Thr
1 5

<210> 5705
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5705
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tcctgtgcag cctctggatt cacctttagc agctatgcca tgacctgggt ccgtcaggct 120
ccagggaagg ggctggagtg ggtctcaagt attagtagta gtggtgttag cacatattac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaactga gcagcctgag agccgaggac acggccatat attactgtgc caaaggcagc 300
agctggtact actttgaatc ctggggccag ggaaccatgg tcaccgtctc ctca 354

<210> 5706
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5706

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 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20                  25                  30
Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ser Ile Ser Ser Ser Gly Val 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 Leu Ser Ser Leu Arg Ala Glu Asp Thr Ala Ile Tyr Tyr Cys
                85                  90                  95
Ala Lys Gly Ser Ser Trp Tyr Tyr Phe Glu Ser Trp Gly Gln Gly Thr
            100                 105                 110
Met Val Thr Val Ser Ser
        115
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<210> 5707
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5707
ggattcacct ttagcagcta tgcc 24

<210> 5708
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5708
Gly Phe Thr Phe Ser Ser Tyr Ala
 1   5

<210> 5709
<211> 24
<212> DNA
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<220>
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<400> 5709
attagtagta gtggtgttag caca 24

<210> 5710
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5710
Ile Ser Ser Ser Gly Val Ser Thr
 1   5

<210> 5711
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5711
gccaaaggca gcagctggta ctactttgaa tcc   33

<210> 5712
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5712
Ala Lys Gly Ser Ser Trp Tyr Tyr Phe Glu Ser
 1   5   10

<210> 5713
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5713
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ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcaaaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag aagactggag 240
cctgaagatt ttgcagtgta tttctgtcag cagtatggta gctcaccgat caccttcggc 300

caagggacac gactggagat caaacga 327

<210> 5714
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5714
Asp Ile Val Met 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
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Arg Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Phe Cys Gln Gln Tyr Gly Ser Ser Pro
                85   90   95
Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
            100   105

<210> 5715
<211> 21
<212> DNA
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<400> 5715
cagagtgtta gcagcagcta c 21

<210> 5716
<211> 7
<212> PRT
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<220>
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<400> 5716
Gln Ser Val Ser Ser Ser Tyr
 1   5

<210> 5717

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

<220>
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<400> 5717
ggtgcatcc 9

<210> 5718
<211> 3
<212> PRT
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<220>
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<400> 5718
Gly Ala Ser
1

<210> 5719
<211> 27
<212> DNA
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<220>
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<400> 5719
cagcagtatg gtagctcacc gatcacc 27

<210> 5720
<211> 9
<212> PRT
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<220>
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<400> 5720
Gln Gln Tyr Gly Ser Ser Pro Ile Thr
1 5

<210> 5721
<211> 372
<212> DNA
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<220>
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tcctgtgcag cctctggatt tactttcaga aacgcctgga tgagctgggt ccgccaggct 120
ccagggaggg ggctggagtg ggttggccgt attaaaagca aaactgatgg tgggacaaca 180
gactacgctg cacccgtgaa aggcagattc accatctcaa gagatgattc aaaaaacaca 240
ctatatctgc aaatgaacag cctgaaaacc gaggacatag ccatgtatta ctgtaccact 300
tataaatgga acttctttgg taactggtcc ttcgatatct ggggccatgg caccctggtc 360
accgtctcct ca 372

<210> 5722
<211> 124
<212> PRT
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<220>
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<400> 5722
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Met Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Asn Ala
            20   25   30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Arg Gly Leu Glu Trp Val
        35   40   45
Gly Arg Ile Lys Ser Lys Thr Asp Gly Gly Thr Thr Asp Tyr Ala Ala
    50   55   60
Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Ile Ala Met Tyr
                85   90   95
Tyr Cys Thr Thr Tyr Lys Trp Asn Phe Phe Gly Asn Trp Ser Phe Asp
            100   105   110
Ile Trp Gly His Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 5723
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5723
ggatttactt tcagaaacgc ctgg 24

<210> 5724
<211> 8

<212> PRT
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<220>
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<400> 5724
Gly Phe Thr Phe Arg Asn Ala Trp
 1   5

<210> 5725
<211> 30
<212> DNA
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<220>
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<400> 5725
attaaaagca aaactgatgg tgggacaaca   30

<210> 5726
<211> 10
<212> PRT
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<400> 5726
Ile Lys Ser Lys Thr Asp Gly Gly Thr Thr
 1   5   10

<210> 5727
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<212> DNA
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<400> 5727
accacttata aatggaactt ctttggtaac tggtccttcg atatc   45

<210> 5728
<211> 15
<212> PRT
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<400> 5728
Thr Thr Tyr Lys Trp Asn Phe Phe Gly Asn Trp Ser Phe Asp Ile
 1   5   10   15

<210> 5729
<211> 324
<212> DNA
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<220>
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<400> 5729
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atcacttgcc gggcaagtca gagtattagc agatatttaa attggtatca acagaaacca 120
gggaaagccc cgaacctcct gatctatgct gcatccagtt tggaacgtgg ggtcccatca 180
aggttcagtg ccagtggatc tgggacagat ttcactctca ccatcagcag tccgcaacct 240
gaagattatg gaacttacta ctgtcaacag agtttcagta gtccgatcac cttcggccaa 300
gggacacgac tggagattaa acga   324

<210> 5730
<211> 108
<212> PRT
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<220>
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<400> 5730
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Arg
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Arg Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Glu Arg Gly Val Pro Ser Arg Phe Ser Ala
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Pro Gln Pro
65   70   75   80
Glu Asp Tyr Gly Thr Tyr Tyr Cys Gln Gln Ser Phe Ser Ser Pro Ile
                85   90   95
Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
            100   105

<210> 5731
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5731
cagagtatta gcagatat 18

<210> 5732
<211> 6
<212> PRT
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<220>
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<400> 5732
Gln Ser Ile Ser Arg Tyr
1 5

<210> 5733
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<212> DNA
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<400> 5733
gctgcatcc 9

<210> 5734
<211> 3
<212> PRT
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<220>
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<400> 5734
Ala Ala Ser
1

<210> 5735
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5735
caacagagtt tcagtagtcc gatcacc 27

<210> 5736
<211> 9
<212> PRT
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<220>
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<400> 5736
Gln Gln Ser Phe Ser Ser Pro Ile Thr
1 5

<210> 5737
<211> 366
<212> DNA
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<400> 5737
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ccagggaagg gactggagtg gattggggaa atcaatcata ctggaagcac caactgcaac 180
ccgtccctca agagtcgagt caccctatca gtagacacgt ccaagaacca gttctccctg 240
aacctgaact ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgcg aggcccctat 300
tcagtaacta cggactacta cggcttggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 5738
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5738
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
1 5 10 15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Arg Ser Phe Ser Tyr Tyr
20 25 30
Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45
Gly Glu Ile Asn His Thr Gly Ser Thr Asn Cys Asn Pro Ser Leu Lys
50 55 60
Ser Arg Val Thr Leu Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

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

<210> 5739
<211> 24
<212> DNA
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<400> 5739
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<210> 5740
<211> 8
<212> PRT
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<220>
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<400> 5740
Gly Arg Ser Phe Ser Tyr Tyr Tyr
1 5

<210> 5741
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5741
atcaatcata ctggaagcac c 21

<210> 5742
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5742

Ile Asn His Thr Gly Ser Thr
 1   5

<210> 5743
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5743
gcgcgaggcc cctattcagt aactacggac tactacggct tggacgtc 48

<210> 5744
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5744
Ala Arg Gly Pro Tyr Ser Val Thr Thr Asp Tyr Tyr Gly Leu Asp Val
 1   5   10   15

<210> 5745
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5745
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagtcacc 60
ctctcctgca ggaccagtca gagtgttacc aacaactact tggcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat gatacatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgacgatt ttgcagtgta ttactgtcag cagtttgctt acttaccgtc cacttttggc 300
caggggacca aggtggagat caaacga 327

<210> 5746
<211> 109
<212> PRT
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<220>
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<400> 5746
Asp Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Val Thr Leu Ser Cys Arg Thr Ser Gln Ser Val Thr Asn Asn
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Asp Thr Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Asp Asp Phe Ala Val Tyr Tyr Cys Gln Gln Phe Ala Tyr Leu Pro
                85   90   95
Ser Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5747
<211> 21
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<213> Artificial Sequence

<220>
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<400> 5747
cagagtgtta ccaacaacta c   21

<210> 5748
<211> 7
<212> PRT
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<220>
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<400> 5748
Gln Ser Val Thr Asn Asn Tyr
 1   5

<210> 5749
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5749
gatacatcc   9

<210> 5750
<211> 3
<212> PRT
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<220>
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<400> 5750
Asp Thr Ser
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<210> 5751
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5751
cagcagtttg cttacttacc gtccact 27

<210> 5752
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5752
Gln Gln Phe Ala Tyr Leu Pro Ser Thr
 1   5

<210> 5753
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5753
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acctgcgctg tctatggtgg gtccttcaat atttactact ggagctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcaatcata ctggtagcac caactaccac 180
ccgtccctca agagtcgagt caccatatca gtagacacgt ccaggaacca gttctccctg 240
aacctgagct ctgtgaccgc cgcggacacg gctgtttatt actgtgcgag aggcccctat 300
acagtaacta cggactacta cggtatggac gtctggggcc gagggaccac ggtcaccgtc 360

tcctca 366

<210> 5754
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5754
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
1 5 10 15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Asn Ile Tyr
20 25 30
Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45
Gly Glu Ile Asn His Thr Gly Ser Thr Asn Tyr His Pro Ser Leu Lys
50 55 60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Arg Asn Gln Phe Ser Leu
65 70 75 80
Asn Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95
Arg Gly Pro Tyr Thr Val Thr Thr Asp Tyr Tyr Gly Met Asp Val Trp
100 105 110
Gly Arg Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 5755
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5755
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<210> 5756
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5756
Gly Gly Ser Phe Asn Ile Tyr Tyr
1 5

<210> 5757
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5757
atcaatcata ctggtagcac c 21

<210> 5758
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5758
Ile Asn His Thr Gly Ser Thr
1 5

<210> 5759
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5759
gcgagaggcc cctatacagt aactacggac tactacggta tggacgtc 48

<210> 5760
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5760
Ala Arg Gly Pro Tyr Thr Val Thr Thr Asp Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 5761
<211> 327
<212> DNA

<213> Artificial Sequence

<220>
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<400> 5761
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ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccaccagaaa 120
cctggccagg ctcccagtct cctcatctat gatacatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cagtatggta gctcaccgct cactttcggc 300
ggagggacca aggtggagat caaacga 327

<210> 5762
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5762
Asp Ile Val Met 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
Tyr Leu Ala Trp Tyr His Gln Lys Pro Gly Gln Ala Pro Ser Leu Leu
        35   40   45
Ile Tyr Asp Thr Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
                85   90   95
Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5763
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5763
cagagtgtta gcagcagcta c 21

<210> 5764
<211> 7
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 5764
Gln Ser Val Ser Ser Ser Tyr
 1   5

<210> 5765
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5765
gatacatcc   9

<210> 5766
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5766
Asp Thr Ser
 1

<210> 5767
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5767
cagcagtatg gtagctcacc gctcact   27

<210> 5768
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5768
Gln Gln Tyr Gly Ser Ser Pro Leu Thr
 1   5

<210> 5769
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5769
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgttg tctatggtgg gtccttcagt ggttactact ggagctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcaatcata gtggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aacctgagct ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgag aggcccattt 300
tacgatattt tgactggtta ttcccttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca   366

<210> 5770
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5770
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Val Val Tyr Gly Gly Ser Phe Ser Gly Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asn His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Asn Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Pro Phe Tyr Asp Ile Leu Thr Gly Tyr Ser Leu Asp Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 5771
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5771
ggtgggtcct tcagtggtta ctac 24

<210> 5772
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5772
Gly Gly Ser Phe Ser Gly Tyr Tyr
1 5

<210> 5773
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5773
atcaatcata gtggaagcac c 21

<210> 5774
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5774
Ile Asn His Ser Gly Ser Thr
1 5

<210> 5775
<211> 48
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5775
gcgagaggcc cattttacga tattttgact ggttattccc ttgactac 48

<210> 5776
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5776
Ala Arg Gly Pro Phe Tyr Asp Ile Leu Thr Gly Tyr Ser Leu Asp Tyr
 1   5   10   15

<210> 5777
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5777
gacatcgtga tgacccagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agctacttaa cctggtacca acagaaacct 120
ggccaggctc ccaggctcct catctatgat gcatccaaca gggccactgg catcccagcc 180
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctagagcct 240
gaagattttg cagtttatta ctgtcagcag cgtagcaact ggcctatcac cttcggccaa 300
gggacacgac tggagattaa acga 324

<210> 5778
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5778
Asp Ile Val Met Thr Gln Ser Pro Ala 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 Tyr
            20   25   30
Leu Thr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro

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

<210> 5779
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5779
cagagtgtta gcagctac 18

<210> 5780
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5780
Gln Ser Val Ser Ser Tyr
1 5

<210> 5781
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5781
gatgcatcc 9

<210> 5782
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5782
Asp Ala Ser

<210> 5783
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5783
cagcagcgta gcaactggcc tatcacc 27

<210> 5784
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5784
Gln Gln Arg Ser Asn Trp Pro Ile Thr
1 5

<210> 5785
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5785
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtacag cctctggatt cacctttgat gattttgcca tgcactgggt ccggcaaggt 120
ccagggaagg gcctggagtg ggtctcaggt attaattgga atagtggtag tataggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgttt 240
ctgcaaatga acagtctgag acctgaggac acggccttct attactgtgc aaaagatatt 300
gcagcagccg ggttctccta ctactacggt atggacgtct ggggccaagg gaccatggtc 360
accgtctcct ca 372

<210> 5786
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5786
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe Thr Phe Asp Asp Phe
            20   25   30
Ala Met His Trp Val Arg Gln Gly Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Asn Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Phe
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Phe Tyr Tyr Cys
                85   90   95
Ala Lys Asp Ile Ala Ala Ala Gly Phe Ser Tyr Tyr Tyr Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 5787
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5787
ggattcacct ttgatgattt tgcc   24

<210> 5788
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5788
Gly Phe Thr Phe Asp Asp Phe Ala
 1   5

<210> 5789
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5789

attaattgga atagtggtag tata 24

<210> 5790
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5790
Ile Asn Trp Asn Ser Gly Ser Ile
1 5

<210> 5791
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5791
gcaaaagata ttgcagcagc cgggttctcc tactactacg gtatggacgt c 51

<210> 5792
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5792
Ala Lys Asp Ile Ala Ala Ala Gly Phe Ser Tyr Tyr Tyr Gly Met Asp
1 5 10 15
Val

<210> 5793
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5793
gacatcctga tgacccagtc tccatccttc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtt gggccagtca gggcattaat aattatttag tctggtatca gcagaaacca 120

gggaaagccc ctaagctcct gatctatgct gcatccactt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag cataatagtt acccattcac tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 5794
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5794
Asp Ile Leu Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Trp Ala Ser Gln Gly Ile Asn Asn Tyr
20 25 30
Leu Val Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45
Tyr Ala Ala Ser 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 Leu Gln His Asn Ser Tyr Pro Phe
85 90 95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 5795
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5795
cagggcatta ataattat 18

<210> 5796
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5796
Gln Gly Ile Asn Asn Tyr
1 5

<210> 5797
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5797
gctgcatcc 9

<210> 5798
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5798
Ala Ala Ser
1

<210> 5799
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5799
ctacagcata atagttaccc attcact 27

<210> 5800
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5800
Leu Gln His Asn Ser Tyr Pro Phe Thr
1 5

<210> 5801
<211> 366

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5801
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acctgcggtg tctatggtgg gtccttcaat tattactact ggagttggat ccgccagccc 120
ccagggaagg gactggagtg gattggggaa atcaatcata ctggaagcac caactacaac 180
ccgtccctca agagtcgagt caccatagaa gtagacacgt ccaagaacca gttctccctg 240
aggttgaact ctgtgaccgc cgcggacacg gctgtatatt actgtgcgag aggcccctat 300
acagtgacta cggactacta cggtttggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 5802
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5802
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Gly Val Tyr Gly Gly Ser Phe Asn Tyr Tyr
            20   25   30
Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asn His Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Glu Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Arg Leu Asn Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Pro Tyr Thr Val Thr Thr Asp Tyr Tyr Gly Leu Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 5803
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5803
ggtgggtcct tcaattatta ctac 24

<210> 5804
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5804
Gly Gly Ser Phe Asn Tyr Tyr Tyr
 1   5

<210> 5805
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5805
atcaatcata ctggaagcac c   21

<210> 5806
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5806
Ile Asn His Thr Gly Ser Thr
 1   5

<210> 5807
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5807
gcgagaggcc cctatacagt gactacggac tactacggtt tggacgtc   48

<210> 5808
<211> 16
<212> PRT

<213> Artificial Sequence

<220>
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<400> 5808
Ala Arg Gly Pro Tyr Thr Val Thr Thr Asp Tyr Tyr Gly Leu Asp Val
 1   5   10   15

<210> 5809
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5809
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ctctcctgca gggccagtca gagtgttagt agcaggtact tagcctggta ccggcagaaa 120
cctggccagg ctcccaggct cctcatctat gacacatcca tcagggccac cggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cagtttggtg gttcaccgca cacttttggc 300
caggggacca aggtggagat caaacga   327

<210> 5810
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5810
Asp Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Val Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Arg
            20   25   30
Tyr Leu Ala Trp Tyr Arg Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Asp Thr Ser Ile Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Phe Gly Gly Ser Pro
                85   90   95
His Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5811

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

<220>
<223> synthetic

<400> 5811
cagagtgtta gtagcaggta c 21

<210> 5812
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5812
Gln Ser Val Ser Ser Arg Tyr
1 5

<210> 5813
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5813
gacacatcc 9

<210> 5814
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5814
Asp Thr Ser
1

<210> 5815
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5815
cagcagtttg gtggttcacc gcacact 27

<210> 5816
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5816
Gln Gln Phe Gly Gly Ser Pro His Thr
1 5

<210> 5817
<211> 387
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5817
gaggtgcagc tggtggagtc tggggctgcg gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg tttccggata caccctcact gaattgtcca tacactgggt gcgacaggct 120
cctggaaaag ggcttgagtg gatgggaagt tttgatcctg aagatggtga aacaatctac 180
gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacaacctac 240
atggaactga acagcctcag aactgaggac acggccgtat attactgtgc aacagcccaa 300
cgtggatatg ttggctacgg gacatcttac tactacttct actctatgga cgtctggggc 360
caagggacca tggtcaccgt ctcctca 387

<210> 5818
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5818
Glu Val Gln Leu Val Glu Ser Gly Ala Ala Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu
20 25 30
Ser Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
35 40 45
Gly Ser Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe

```
    50                  55                  60
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Thr Tyr
65                  70                  75                  80
Met Glu Leu Asn Ser Leu Arg Thr Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Thr Ala Gln Arg Gly Tyr Val Gly Tyr Gly Thr Ser Tyr Tyr Tyr
            100                 105                 110
Phe Tyr Ser Met Asp Val Trp Gly Gln Gly Thr Met Val Thr Val Ser
        115                 120                 125
Ser
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<210> 5819
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5819
ggatacaccc tcactgaatt gtcc 24

<210> 5820
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5820
Gly Tyr Thr Leu Thr Glu Leu Ser
 1   5

<210> 5821
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5821
tttgatcctg aagatggtga aaca 24

<210> 5822
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5822
Phe Asp Pro Glu Asp Gly Glu Thr
 1   5

<210> 5823
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5823
gcaacagccc aacgtggata tgttggctac gggacatctt actactactt ctactctatg 60
gacgtc   66

<210> 5824
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5824
Ala Thr Ala Gln Arg Gly Tyr Val Gly Tyr Gly Thr Ser Tyr Tyr Tyr
 1   5   10   15
Phe Tyr Ser Met Asp Val
            20

<210> 5825
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5825
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tacaaagtgg ggtcccatca 180
aggttcagcg gcaatggatc tggcacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacaa gattacaatt acccgtggac gttcggccaa 300
gggaccaagg tggagatcaa acga   324

<210> 5826
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5826
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
            20   25   30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Asn 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 Leu Gln Asp Tyr Asn Tyr Pro Trp
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5827
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5827
cagggcatta gaaatgat   18

<210> 5828
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5828
Gln Gly Ile Arg Asn Asp
 1   5

<210> 5829
<211> 9
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 5829
gctgcatcc 9

<210> 5830
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5830
Ala Ala Ser
 1

<210> 5831
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5831
ctacaagatt acaattaccc gtggacg 27

<210> 5832
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5832
Leu Gln Asp Tyr Asn Tyr Pro Trp Thr
 1   5

<210> 5833
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5833
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg gttggcagtt atatggtttg atggaagtaa taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagagata 300
gcagctcgtc cttttgacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 5834
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5834
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Leu
        35   40   45
Ala Val Ile Trp Phe Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Glu Ile Ala Ala Arg Pro Phe Asp Tyr Trp Gly Gln Gly Thr
            100   105   110
Leu Val Thr Val Ser Ser
        115

<210> 5835
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5835
ggattcacct tcagtagcta tggc 24

<210> 5836
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5836
Gly Phe Thr Phe Ser Ser Tyr Gly
 1   5

<210> 5837
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5837
atatggtttg atggaagtaa taaa   24

<210> 5838
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5838
Ile Trp Phe Asp Gly Ser Asn Lys
 1   5

<210> 5839
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5839
gcgagagaga tagcagctcg tccttttgac tac   33

<210> 5840
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5840

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Ala Arg Glu Ile Ala Ala Arg Pro Phe Asp Tyr
 1               5                  10
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<210> 5841
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5841
gacatcgtga tgacccagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtca gagcctcctg catagtaatg gatacaacta tttggattgg 120
tacctgcaga agccagggca gtctccacag ctcctgatct atttgggttc taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcagagtgg aggctgagga tgttggggtt tattactgca tgcaagctct acaagctccc 300
tacacttttg gccaggggac caaggtggag atcaaacga   339

<210> 5842
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5842
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Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1               5                  10                  15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
            20                  25                  30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35                  40                  45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50                  55                  60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65                  70                  75                  80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
                85                  90                  95
Leu Gln Ala Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105                 110
Arg
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<210> 5843
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5843
cagagcctcc tgcatagtaa tggatacaac tat 33

<210> 5844
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5844
Gln Ser Leu Leu His Ser Asn Gly Tyr Asn Tyr
1 5 10

<210> 5845
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5845
ttgggttct 9

<210> 5846
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5846
Leu Gly Ser
1

<210> 5847
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5847

atgcaagctc tacaagctcc ctacact 27

<210> 5848
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5848
Met Gln Ala Leu Gln Ala Pro Tyr Thr
 1 5

<210> 5849
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5849
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgttg tctctggtgg gtccttccgt ctttactact ggacctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcaatcata ctgggagcaa caactacaac 180
ccgtccctca agagtcgagt caccatatca gtagacacgt ccaagaacca cttctccctg 240
aagctgaatt ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgag aggcccctat 300
tcagtgacta cggactacta cggtttggac gtctggggcc aagggaccat ggtcaccgtc 360
tcctca 366

<210> 5850
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5850
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1 5 10 15
Thr Leu Ser Leu Thr Cys Val Val Ser Gly Gly Ser Phe Arg Leu Tyr
 20 25 30
Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45
Gly Glu Ile Asn His Thr Gly Ser Asn Asn Tyr Asn Pro Ser Leu Lys
 50 55 60
Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn His Phe Ser Leu
65 70 75 80
Lys Leu Asn Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala

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

<210> 5851
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5851
ggtgggtcct tccgtcttta ctac 24

<210> 5852
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5852
Gly Gly Ser Phe Arg Leu Tyr Tyr
1 5

<210> 5853
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5853
atcaatcata ctgggagcaa c 21

<210> 5854
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5854
Ile Asn His Thr Gly Ser Asn

 1   5

<210> 5855
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5855
gcgagaggcc cctattcagt gactacggac tactacggtt tggacgtc   48

<210> 5856
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5856
Ala Arg Gly Pro Tyr Ser Val Thr Thr Asp Tyr Tyr Gly Leu Asp Val
 1   5   10   15

<210> 5857
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5857
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccggggga aagagccacc 60
ctctcctgca gggccagtca gagttttaac agcgactact tagcctggta ccagcagaaa 120
cctggccaga ctcccaggct cctcatctat ggtacgtcca ccagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag gagactggag 240
cctgaagatt ttgcagtgta ttactgtcac cagtatggta gtttgccgct cacattcggc 300
ggagggacca aggtggagat caaacga   327

<210> 5858
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5858

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

<210> 5859
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5859
cagagtttta acagcgacta c 21

<210> 5860
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5860
Gln Ser Phe Asn Ser Asp Tyr
 1   5

<210> 5861
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5861
ggtacgtcc 9

<210> 5862

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

<220>
<223> synthetic

<400> 5862
Gly Thr Ser
 1

<210> 5863
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5863
caccagtatg gtagtttgcc gctcaca 27

<210> 5864
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5864
His Gln Tyr Gly Ser Leu Pro Leu Thr
 1 5

<210> 5865
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5865
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt acctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggccggagtg ggtggcactt atttggtatg atggaattaa taaatatcat 180
ggagagtccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agtcgaggac acggctgtgt attactgtgc gagagatcgg 300
gacgtgtttc gcagttcgta tcactcctat tacggtatgg atgtctgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 5866
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5866
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Pro Glu Trp Val
        35   40   45
Ala Leu Ile Trp Tyr Asp Gly Ile Asn Lys Tyr His Gly Glu Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Arg Asp Val Phe Arg Ser Ser Tyr His Ser Tyr Tyr Gly
            100   105   110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 5867
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5867
ggattcacct tcagtaccta tggc   24

<210> 5868
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5868
Gly Phe Thr Phe Ser Thr Tyr Gly
 1   5

<210> 5869
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5869
atttggtatg atggaattaa taaa 24

<210> 5870
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5870
Ile Trp Tyr Asp Gly Ile Asn Lys
 1 5

<210> 5871
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5871
gcgagagatc gggacgtgtt tcgcagttcg tatcactcct attacggtat ggatgtc 57

<210> 5872
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5872
Ala Arg Asp Arg Asp Val Phe Arg Ser Ser Tyr His Ser Tyr Tyr Gly
 1 5 10 15
Met Asp Val

<210> 5873
<211> 336

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5873
gacatcgtga tgacccagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtca gagcctcctg catggtaatg gacacaacta tttggattgg 120
tacatgcaga agtcagggca gtctccacag gtcctgatct atttgggttc taagcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac attgaaaatc 240
agcagagtgg aggctgagga tgttgggatt tattactgca tgcaagctct acaaactccc 300
actttcggcg gagggaccaa ggtggagatc aaacga 336

<210> 5874
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5874
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Gly
            20   25   30
Asn Gly His Asn Tyr Leu Asp Trp Tyr Met Gln Lys Ser Gly Gln Ser
        35   40   45
Pro Gln Val Leu Ile Tyr Leu Gly Ser Lys Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Ile Tyr Tyr Cys Met Gln Ala
                85   90   95
Leu Gln Thr Pro Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105   110

<210> 5875
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5875
cagagcctcc tgcatggtaa tggacacaac tat 33

<210> 5876
<211> 11

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5876
Gln Ser Leu Leu His Gly Asn Gly His Asn Tyr
 1   5   10

<210> 5877
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5877
ttgggttct   9

<210> 5878
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5878
Leu Gly Ser
 1

<210> 5879
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5879
atgcaagctc tacaaactcc cact   24

<210> 5880
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5880
Met Gln Ala Leu Gln Thr Pro Thr
 1   5

<210> 5881
<211> 387
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5881
gaggtgcagc tggtggagtc tggggctgcg gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg tttccggata caccctcact gaattgtcca tacactgggt gcgacaggct 120
cctggaaaag ggcttgagtg gatgggaagt tttgatcctg aagatggtga aacaatctac 180
gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacaacctac 240
atggaactga acagcctcag aactgaggac acggccgtat attactgtgc aacagcccaa 300
cgtggatatg ttggctacgg gacatcttac tactacttct actctatgga cgtctggggc 360
caagggacca cggtcaccgt ctcctca   387

<210> 5882
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5882
Glu Val Gln Leu Val Glu Ser Gly Ala Ala Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu
            20   25   30
Ser Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Ser Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Thr Tyr
65   70   75   80
Met Glu Leu Asn Ser Leu Arg Thr Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Thr Ala Gln Arg Gly Tyr Val Gly Tyr Gly Thr Ser Tyr Tyr Tyr
            100   105   110
Phe Tyr Ser Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 5883
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5883
ggatacaccc tcactgaatt gtcc 24

<210> 5884
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5884
Gly Tyr Thr Leu Thr Glu Leu Ser
1 5

<210> 5885
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5885
tttgatcctg aagatggtga aaca 24

<210> 5886
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5886
Phe Asp Pro Glu Asp Gly Glu Thr
1 5

<210> 5887
<211> 66
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 5887
gcaacagccc aacgtggata tgttggctac gggacatctt actactactt ctactctatg 60
gacgtc 66

<210> 5888
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5888
Ala Thr Ala Gln Arg Gly Tyr Val Gly Tyr Gly Thr Ser Tyr Tyr Tyr
 1 5 10 15
Phe Tyr Ser Met Asp Val
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<210> 5889
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5889
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tacaaagtgg ggtcccatca 180
aggttcagcg gcaatggatc tggcacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacaa gattacaatt acccgtggac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 5890
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5890
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp

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            20                  25                  30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Asn 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 Leu Gln Asp Tyr Asn Tyr Pro Trp
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100                 105
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<210> 5891
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5891
cagggcatta gaaatgat 18

<210> 5892
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5892
Gln Gly Ile Arg Asn Asp
 1   5

<210> 5893
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5893
gctgcatcc 9

<210> 5894
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5894
Ala Ala Ser
 1

<210> 5895
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5895
ctacaagatt acaattaccc gtggacg 27

<210> 5896
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5896
Leu Gln Asp Tyr Asn Tyr Pro Trp Thr
 1   5

<210> 5897
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5897
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acctgcgctg tctatggtgg gtccttcaat atttactact ggacctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcaatcata ctggaagcac caactacatc 180
ccgtccctca agagtcgagt cagcatatca gtagacacgt ccaagaacca gttctccctt 240
aaactgacct ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgag aggcccctat 300
acactaacaa cggactatta cggtttggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 5898
<211> 122

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5898
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Asn Ile Tyr
            20   25   30
Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Asn His Thr Gly Ser Thr Asn Tyr Ile Pro Ser Leu Lys
    50   55   60
Ser Arg Val Ser Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Gly Pro Tyr Thr Leu Thr Thr Asp Tyr Tyr Gly Leu Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 5899
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5899
ggtgggtcct tcaatattta ctac   24

<210> 5900
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5900
Gly Gly Ser Phe Asn Ile Tyr Tyr
 1   5

<210> 5901
<211> 21
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 5901
atcaatcata ctggaagcac c 21

<210> 5902
<211> 7
<212> PRT
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<220>
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<400> 5902
Ile Asn His Thr Gly Ser Thr
1 5

<210> 5903
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5903
gcgagaggcc cctatacact aacaacggac tattacggtt tggacgtc 48

<210> 5904
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5904
Ala Arg Gly Pro Tyr Thr Leu Thr Thr Asp Tyr Tyr Gly Leu Asp Val
1 5 10 15

<210> 5905
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5905
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ctctcctgca gggccagtca gagtattagc agcgactact tagcctggta ccaacaaaaa 120
actggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgagaca gacttcactc tcaacatcag cagactggag 240
gctgaagatt ttgcagtgta ttactgtcag cagtatggtg gctcaccgtc acttttggc 300
caggggacca aggtggagat caaacga 327

<210> 5906
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5906
Asp Ile Gln Met Thr Gln Ser Pro Asp Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Ser Asp
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Thr Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Glu Thr Asp Phe Thr Leu Asn Ile Ser Arg Leu Glu
65   70   75   80
Ala Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Gly Ser Pro
                85   90   95
Ser Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5907
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5907
cagagtatta gcagcgacta c 21

<210> 5908
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5908
Gln Ser Ile Ser Ser Asp Tyr
 1   5

<210> 5909
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5909
ggtgcatcc   9

<210> 5910
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5910
Gly Ala Ser
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<210> 5911
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5911
cagcagtatg gtggctcacc gtccact   27

<210> 5912
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5912
Gln Gln Tyr Gly Gly Ser Pro Ser Thr
 1   5

<210> 5913
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5913
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtggcg tctctggatt cacctttgat gatcatgcca tgcactgggt ccggcaagct 120
ccagggaagg gcctggagtg ggtcgcaggt attagttgga atagtggtag catgggctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctctat 240
ctgcaaatga acagtctgag acctgaagac acggccttgt attactgtgc aagagatata 300
gcagcagctg gactccatta ctacggtatg gacgtctggg gccaagggac cacggtcacc 360
gtctcctca 369

<210> 5914
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5914
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Gly Val Ser Gly Phe Thr Phe Asp Asp His
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Gly Ile Ser Trp Asn Ser Gly Ser Met Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Pro Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Arg Asp Ile Ala Ala Ala Gly Leu His Tyr Tyr Gly Met Asp Val
            100   105   110
Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 5915
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5915
ggattcacct ttgatgatca tgcc 24

<210> 5916
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5916
Gly Phe Thr Phe Asp Asp His Ala
1 5

<210> 5917
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5917
attagttgga atagtggtag catg 24

<210> 5918
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5918
Ile Ser Trp Asn Ser Gly Ser Met
1 5

<210> 5919
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5919
gcaagagata tagcagcagc tggactccat tactacggta tggacgtc 48

<210> 5920
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5920
Ala Arg Asp Ile Ala Ala Ala Gly Leu His Tyr Tyr Gly Met Asp Val
 1   5   10   15

<210> 5921
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5921
gacatcgtga tgacccagtc tccatcctcc ctgtctgcat ctgtagaaga cagagtcacc 60
atcacttgcc gggcaagtca ggacattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caatttatta ctgtctacag tataatagtt acccattcac tttcggccct 300
gggaccaagg tggagatcaa acga   324

<210> 5922
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5922
Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Glu
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp 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 Ile Tyr Tyr Cys Leu Gln Tyr Asn Ser Tyr Pro Phe
                85   90   95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg

100 105

<210> 5923
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5923
caggacatta gaaatgat 18

<210> 5924
<211> 6
<212> PRT
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<220>
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<400> 5924
Gln Asp Ile Arg Asn Asp
1 5

<210> 5925
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5925
gctgcatcc 9

<210> 5926
<211> 3
<212> PRT
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<220>
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<400> 5926
Ala Ala Ser
1

<210> 5927

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

<220>
<223> synthetic

<400> 5927
ctacagtata atagttaccc attcact 27

<210> 5928
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 5928
Leu Gln Tyr Asn Ser Tyr Pro Phe Thr
1 5

<210> 5929
<211> 378
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5929
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggccggagtg ggtggcaatt atttggtatg atggaattaa taaatatcat 180
ggagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agtcgaggac acggctgtgt attactgtgc gagagatcgg 300
gacgtgtttc gcagttcgta ttattcctat tacggtatgg atgtctgggg ccaagggacc 360
acggtcaccg tctcctca 378

<210> 5930
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5930
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr

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


<210> 5931
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5931
ggattcacct tcagtagcta tggc                                          24

<210> 5932
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5932
Gly Phe Thr Phe Ser Ser Tyr Gly
 1               5


<210> 5933
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5933
atttggtatg atggaattaa taaa                                          24

<210> 5934
<211> 8
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<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5934
Ile Trp Tyr Asp Gly Ile Asn Lys
 1   5

<210> 5935
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5935
gcgagagatc gggacgtgtt tcgcagttcg tattattcct attacggtat ggatgtc   57

<210> 5936
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5936
Ala Arg Asp Arg Asp Val Phe Arg Ser Ser Tyr Tyr Ser Tyr Tyr Gly
 1   5   10   15
Met Asp Val

<210> 5937
<211> 336
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5937
gacatcgtga tgacccagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtca gagcctccta catggtaatg gacacaacta tttggattgg 120
tacatgcaga agtcagggca gtctccacag gtcctgatct atttgggttc taagcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac attgaaaatc 240
agcacagtgg aggctgagga tgttgggatt tattactgca tgcaagctct acaaactccc 300
actttcggcg gagggaccaa ggtggagatc aaacga   336

<210> 5938
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5938
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Gly
            20   25   30
Asn Gly His Asn Tyr Leu Asp Trp Tyr Met Gln Lys Ser Gly Gln Ser
        35   40   45
Pro Gln Val Leu Ile Tyr Leu Gly Ser Lys Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Thr Val Glu Ala Glu Asp Val Gly Ile Tyr Tyr Cys Met Gln Ala
                85   90   95
Leu Gln Thr Pro Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105   110

<210> 5939
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5939
cagagcctcc tacatggtaa tggacacaac tat   33

<210> 5940
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5940
Gln Ser Leu Leu His Gly Asn Gly His Asn Tyr
 1   5   10

<210> 5941
<211> 9

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5941
ttgggttct 9

<210> 5942
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5942
Leu Gly Ser
 1

<210> 5943
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5943
atgcaagctc tacaaactcc cact 24

<210> 5944
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5944
Met Gln Ala Leu Gln Thr Pro Thr
 1   5

<210> 5945
<211> 357
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5945
caggtgcagc tggtgcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc 60
acctgcgctg tcaatggtgg gtccttcagt ggttacttct ggagctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcattcaaa gtggaaccat cacctacaac 180
ccgtccctca agagtcgagt caccatatcg atagacacgt ccactaacca gttctccctg 240
aagctgacct ctgtgaccgc cgcggacacg gctgtgtatt actgtgcggg gaataagtgg 300
aactacgaga ggtggttcga ccctggggc cagggaacca tggtcaccgt ctcctca 357

<210> 5946
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5946
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Asn Gly Gly Ser Phe Ser Gly Tyr
            20   25   30
Phe Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Ile Gln Ser Gly Thr Ile Thr Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Ile Asp Thr Ser Thr Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Gly Asn Lys Trp Asn Tyr Glu Arg Trp Phe Asp Pro Trp Gly Gln Gly
            100   105   110
Thr Met Val Thr Val Ser Ser
        115

<210> 5947
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5947
ggtgggtcct tcagtggtta cttc 24

<210> 5948
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5948
Gly Gly Ser Phe Ser Gly Tyr Phe
 1   5

<210> 5949
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5949
atcattcaaa gtggaaccat c   21

<210> 5950
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5950
Ile Ile Gln Ser Gly Thr Ile
 1   5

<210> 5951
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5951
gcggggaata agtggaacta cgagaggtgg ttcgacccc   39

<210> 5952
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5952
Ala Gly Asn Lys Trp Asn Tyr Glu Arg Trp Phe Asp Pro
 1   5   10

<210> 5953
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5953
gacatcgtga tgacccagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgta gggccagtca gagtgttaga agcaacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt atatttacca gggccactaa tatcccagcc 180
aggttcagtg gtggtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagactttg cagtttatta ctgtcagcag tatcataact ggatcacctt cggccaaggg 300
acacgactgg agattaaacg a   321

<210> 5954
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5954
Asp Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Arg Ser Asn
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Gly Ile Phe Thr Arg Ala Thr Asn Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Gly Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr His Asn Trp Ile Thr
                85   90   95
Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
            100   105

<210> 5955
<211> 18
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 5955
cagagtgtta gaagcaac 18

<210> 5956
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5956
Gln Ser Val Arg Ser Asn
 1   5

<210> 5957
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5957
ggtatattt 9

<210> 5958
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5958
Gly Ile Phe
 1

<210> 5959
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5959
cagcagtatc ataactggat cacc 24

<210> 5960
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5960
Gln Gln Tyr His Asn Trp Ile Thr
 1   5

<210> 5961
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
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ccaggcaagg gactggagtg ggtggcatct atatggtatg atggaaccaa taaaaactat 180
gtaaactccg tgtggggccg attcaccatc tccagagaca actccaagaa cacgctgtat 240
ttgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gacagaaatc 300
gcagctcgtc cctttgagta ttggggccag ggaaccctgg tcaccgtctc ctca   354

<210> 5962
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5962
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 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Ser Ile Trp Tyr Asp Gly Thr Asn Lys Asn Tyr Val Asn Ser Val
    50   55   60
Trp 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 Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr Trp Gly Gln Gly Thr

100 105 110
Leu Val Thr Val Ser Ser
115

<210> 5963
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5963
ggattcacct tcagtaccta tggc 24

<210> 5964
<211> 8
<212> PRT
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<220>
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<400> 5964
Gly Phe Thr Phe Ser Thr Tyr Gly
1 5

<210> 5965
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<212> DNA
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<220>
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<400> 5965
atatggtatg atggaaccaa taaa 24

<210> 5966
<211> 8
<212> PRT
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<220>
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<400> 5966
Ile Trp Tyr Asp Gly Thr Asn Lys
1 5

<210> 5967
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5967
gcgacagaaa tcgcagctcg tccctttgag tat 33

<210> 5968
<211> 11
<212> PRT
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<220>
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<400> 5968
Ala Thr Glu Ile Ala Ala Arg Pro Phe Glu Tyr
1 5 10

<210> 5969
<211> 339
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5969
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atctcctgca ggtctagtca gagcctcctg catagtaatg gatacaacta tttggattgg 120
tacctgcaga agccagggca gtctccacag ctcctgatct atttgggttt taatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt gtctcaggca cagattttac actgaaaatc 240
agcagagtgg aggctgagga tgttgggatt tattactgca tgcaagctct gcaaattccg 300
tacacttttg gccaggggac caaggtggag atcaaacga 339

<210> 5970
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5970
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15

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

<210> 5971
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5971
cagagcctcc tgcatagtaa tggatacaac tat 33

<210> 5972
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5972
Gln Ser Leu Leu His Ser Asn Gly Tyr Asn Tyr
 1   5   10

<210> 5973
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5973
ttgggtttt 9

<210> 5974

<211> 3
<212> PRT
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<220>
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<400> 5974
Leu Gly Phe
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<210> 5975
<211> 27
<212> DNA
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<220>
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<400> 5975
atgcaagctc tgcaaattcc gtacact 27

<210> 5976
<211> 9
<212> PRT
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<220>
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<400> 5976
Met Gln Ala Leu Gln Ile Pro Tyr Thr
 1   5

<210> 5977
<211> 369
<212> DNA
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<220>
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<400> 5977
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ccagggaagg gcctggaatg ggtctcaggt attagttgga atagtgttaa caaagactgt 180
gcggactctg tgaggggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag aactgaggac acggccttct attactgtgc aaagagtgcc 300
ttaactgtgg atgccctcta ctggtatttc gatatctggg gccgtggcac cctggtcacc 360
gtctcctca 369

<210> 5978
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5978
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Phe Gln Pro Asp Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Asp Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Val Asn Lys Asp Cys Ala Asp Ser Val
    50   55   60
Arg 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 Thr Glu Asp Thr Ala Phe Tyr Tyr Cys
                85   90   95
Ala Lys Ser Ala Leu Thr Val Asp Ala Leu Tyr Trp Tyr Phe Asp Ile
            100   105   110
Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 5979
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5979
ggattcacct ttgatgatta tgac   24

<210> 5980
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 5980
Gly Phe Thr Phe Asp Asp Tyr Asp
 1   5

<210> 5981
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5981
attagttgga atagtgttaa caaa 24

<210> 5982
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5982
Ile Ser Trp Asn Ser Val Asn Lys
1 5

<210> 5983
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5983
gcaaagagtg ccttaactgt ggatgccctc tactggtatt tcgatatc 48

<210> 5984
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5984
Ala Lys Ser Ala Leu Thr Val Asp Ala Leu Tyr Trp Tyr Phe Asp Ile
1 5 10 15

<210> 5985
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5985
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ctctcctgca gggccagtca gatttttggc agcagttact tagcctggta ccaactgaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagcctggag 240
cctgaagatt ttgcagtgta ttactgtcag cactatggta gctcacctta cacttttggc 300
caggggacca aggtggagat caaacga 327

<210> 5986
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5986
Asp Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Val Thr Leu Ser Cys Arg Ala Ser Gln Ile Phe Gly Ser Ser
            20   25   30
Tyr Leu Ala Trp Tyr Gln Leu Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Tyr Gly Ser Ser Pro
                85   90   95
Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 5987
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5987
cagatttttg gcagcagtta c 21

<210> 5988
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5988
Gln Ile Phe Gly Ser Ser Tyr
 1   5

<210> 5989
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5989
ggtgcatcc   9

<210> 5990
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 5990
Gly Ala Ser
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<210> 5991
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5991
cagcactatg gtagctcacc ttacact   27

<210> 5992
<211> 9
<212> PRT
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<220>
<223> synthetic

<400> 5992
Gln His Tyr Gly Ser Ser Pro Tyr Thr
 1   5

<210> 5993
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5993
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acctgcgctg tctatggtgg gctcttcagt ggttacttct ggagctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggaa atcattcaaa gtggaagcat cacctacaac 180
ccgtctctca agagtcgagt caccatatcg atagacacgt ccactaatca gttctccctg 240
aagctgagct ctgtgaccgc cgcggacacg gctgtgtatt actgtgcggg aaataagtgg 300
aactacgaga ggtggttcga cccctggggc cagggaaccc tggtcaccgt ctcctca   357

<210> 5994
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5994
Gln Val Gln Leu Val Glu Ser Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Leu Phe Ser Gly Tyr
            20   25   30
Phe Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Glu Ile Ile Gln Ser Gly Ser Ile Thr Tyr Asn Pro Ser Leu Lys
    50   55   60
Ser Arg Val Thr Ile Ser Ile Asp Thr Ser Thr Asn Gln Phe Ser Leu
65   70   75   80
Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Gly Asn Lys Trp Asn Tyr Glu Arg Trp Phe Asp Pro Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 5995
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 5995
ggtgggctct tcagtggtta cttc 24

<210> 5996
<211> 8
<212> PRT
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<220>
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<400> 5996
Gly Gly Leu Phe Ser Gly Tyr Phe
1 5

<210> 5997
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 5997
atcattcaaa gtggaagcat c 21

<210> 5998
<211> 7
<212> PRT
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<220>
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<400> 5998
Ile Ile Gln Ser Gly Ser Ile
1 5

<210> 5999
<211> 39
<212> DNA
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<400> 5999
gcgggaaata agtggaacta cgagaggtgg ttcgacccc 39

<210> 6000
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6000
Ala Gly Asn Lys Trp Asn Tyr Glu Arg Trp Phe Asp Pro
1 5 10

<210> 6001
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6001
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ctctcctgca gggccagtca gagtgttagc agcaacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcatccacca gggccactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcagcag tatcataact ggatcacctt cggccaaggg 300
acacgactgg agattaaacg a 321

<210> 6002
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6002
Asp Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15
Glu Gly Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr His Asn Trp Ile Thr

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

<210> 6003
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6003
cagagtgtta gcagcaac 18

<210> 6004
<211> 6
<212> PRT
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<220>
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<400> 6004
Gln Ser Val Ser Ser Asn
1 5

<210> 6005
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6005
ggtgcatcc 9

<210> 6006
<211> 3
<212> PRT
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<220>
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<400> 6006
Gly Ala Ser
1

<210> 6007
<211> 24
<212> DNA
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<220>
<223> synthetic

<400> 6007
cagcagtatc ataactggat cacc 24

<210> 6008
<211> 8
<212> PRT
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<220>
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<400> 6008
Gln Gln Tyr His Asn Trp Ile Thr
1 5

<210> 6009
<211> 366
<212> DNA
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<220>
<223> synthetic

<400> 6009
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acctccgctg tctataatgg gtccttcact atttattatt ggacctggat ccgccagccc 120
ccagggaagg ggctggagtg gattggggag atcaatcata ctggaagtac caactacaac 180
ccgtccctca agagtcgagt caccatatca gtagacacgc ccaagaacca gttctctctg 240
aaactaacct cagtgaccgc cgcggacacg gctgtttatt tctgtgcgag aggcccctat 300
acattaacta cggactacta cggtctggac gtctggggcc aagggaccac ggtcaccgtc 360
tcctca 366

<210> 6010
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6010
Gln Val Gln Leu Val Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu

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 1               5                  10                  15
Thr Leu Ser Leu Thr Ser Ala Val Tyr Asn Gly Ser Phe Thr Ile Tyr
            20                  25                  30
Tyr Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Gly Glu Ile Asn His Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
    50                  55                  60
Ser Arg Val Thr Ile Ser Val Asp Thr Pro Lys Asn Gln Phe Ser Leu
65                  70                  75                  80
Lys Leu Thr Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Phe Cys Ala
                85                  90                  95
Arg Gly Pro Tyr Thr Leu Thr Thr Asp Tyr Tyr Gly Leu Asp Val Trp
            100                 105                 110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120
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<210> 6011
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6011
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<210> 6012
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6012
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Asn Gly Ser Phe Thr Ile Tyr Tyr
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<210> 6013
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6013
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<210> 6014
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6014
Ile Asn His Thr Gly Ser Thr
 1   5

<210> 6015
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6015
gcgagaggcc cctatacatt aactacggac tactacggtc tggacgtc 48

<210> 6016
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6016
Ala Arg Gly Pro Tyr Thr Leu Thr Thr Asp Tyr Tyr Gly Leu Asp Val
 1   5   10   15

<210> 6017
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6017
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ctctcctgca gggccagtca gagtgttagc agctactact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat gatacatcca ccagggccac tggcatccca 180
gacaggttca ttggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcaa cagtttggta gttcaccgct cactttcggc 300
ggagggacca aggtggagat caaacga 327

<210> 6018
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6018
Asp Ile Val Met 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 Tyr
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Asp Thr Ser Thr Arg Ala Thr Gly Ile Pro Asp Arg Phe Ile
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Phe Gly Ser Ser Pro
                85   90   95
Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 6019
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6019
cagagtgtta gcagctacta c   21

<210> 6020
<211> 7
<212> PRT
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<220>
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<400> 6020
Gln Ser Val Ser Ser Tyr Tyr
 1   5

<210> 6021
<211> 9

<212> DNA
<213> Artificial Sequence

<220>
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<400> 6021
gatacatcc 9

<210> 6022
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6022
Asp Thr Ser
1

<210> 6023
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6023
caacagtttg gtagttcacc gctcact 27

<210> 6024
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6024
Gln Gln Phe Gly Ser Ser Pro Leu Thr
1 5

<210> 6025
<211> 366
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 6025
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ccaggcaagg ggctggagtg gatggcagat atatggtatg atggaagtaa tacagactat 180
gtagactccg tgaagggccg attcaccatc tcaagagaca attccaagaa cacgttgtat 240
ctccaaatga acagcctgag agtcgaggac acggctgttt attactgtgc gagagatcgg 300
catagtaaca gctggttaga ctacttagaa tattggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 6026
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6026
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Ala Asp Ile Trp Tyr Asp Gly Ser Asn Thr Asp Tyr Val Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Arg His Ser Asn Ser Trp Leu Asp Tyr Leu Glu Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 6027
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6027
ggattcacct tcagtagcta tggc 24

<210> 6028
<211> 8
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 6028
Gly Phe Thr Phe Ser Ser Tyr Gly
 1   5

<210> 6029
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6029
atatggtatg atggaagtaa taca   24

<210> 6030
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6030
Ile Trp Tyr Asp Gly Ser Asn Thr
 1   5

<210> 6031
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6031
gcgagagatc ggcatagtaa cagctggtta gactacttag aatat   45

<210> 6032
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6032
Ala Arg Asp Arg His Ser Asn Ser Trp Leu Asp Tyr Leu Glu Tyr
 1   5   10   15

<210> 6033
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6033
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atcacttgcc gggcaagtca ggacattaga aatgatttag gctggtatca acagacacca 120
gggaaagccc ctaagcgcct gatttatgct gcatccagtt tacaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacaa cataatagtc accctctcac tttcggcgga 300
gggaccaagg tggagatcaa acga   324

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<211> 108
<212> PRT
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<220>
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<400> 6034
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 Arg Asn Asp
            20   25   30
Leu Gly Trp Tyr Gln Gln Thr 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 His Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 6035
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6035
caggacatta gaaatgat 18

<210> 6036
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6036
Gln Asp Ile Arg Asn Asp
 1 5

<210> 6037
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6037
gctgcatcc 9

<210> 6038
<211> 3
<212> PRT
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<220>
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<400> 6038
Ala Ala Ser
 1

<210> 6039
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6039

ctacaacata atagtcaccc tctcact 27

<210> 6040
<211> 9
<212> PRT
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<400> 6040
Leu Gln His Asn Ser His Pro Leu Thr
 1   5

<210> 6041
<211> 360
<212> DNA
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<220>
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<400> 6041
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tcctgtgtag cctctgggtt caccgtcact agtaactata tgacctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagtt atttataccg gtgatacgac acactacgca 180
gactccgtga agggccgatt caccatctcc agacacaatt ccaagaatac gctgtatctt 240
caaatgaata ccctgagagc tgaggacacg gccgtgtatt actgtgcgag agatagaatt 300
acgatccgag actgtggtat ggacgtctgg ggccaaggga ccacggtcac cgtctcctca 360

<210> 6042
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6042
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe Thr Val Thr Ser Asn
            20   25   30
Tyr Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Val Ile Tyr Thr Gly Asp Thr Thr His Tyr Ala Asp Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg His Asn Ser Lys Asn Thr Leu Tyr Leu
65   70   75   80
Gln Met Asn Thr Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala

85 90 95
Arg Asp Arg Ile Thr Ile Arg Asp Cys Gly Met Asp Val Trp Gly Gln
100 105 110
Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 6043
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6043
gggttcaccg tcactagtaa ctat 24

<210> 6044
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6044
Gly Phe Thr Val Thr Ser Asn Tyr
1 5

<210> 6045
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6045
atttataccg gtgatacgac a 21

<210> 6046
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6046
Ile Tyr Thr Gly Asp Thr Thr

1 5

<210> 6047
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6047
gcgagagata gaattacgat ccgagactgt ggtatggacg tc 42

<210> 6048
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6048
Ala Arg Asp Arg Ile Thr Ile Arg Asp Cys Gly Met Asp Val
1 5 10

<210> 6049
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6049
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atcagttgtc gggcgagtca ggatataagc agctggttag cctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatgtt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggata tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaacagtt tcccgtggac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 6050
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6050

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 1               5                  10                  15
Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Asp 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 Val Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Tyr 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 Arg
            100                 105
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<210> 6051
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6051
caggatataa gcagctgg 18

<210> 6052
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6052
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Gln Asp Ile Ser Ser Trp
 1               5
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<210> 6053
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6053
gttgcatcc 9

<210> 6054

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

<220>
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<400> 6054
Val Ala Ser
 1

<210> 6055
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6055
caacaggcta acagtttccc gtggacg 27

<210> 6056
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6056
Gln Gln Ala Asn Ser Phe Pro Trp Thr
 1 5

<210> 6057
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6057
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tcctgtaagg gttctggata cagctttacc accttctgga tcggctgggt gcgccagatg 120
cccgggcaag gcctggagtg gatgggcttc gtctatcctg gtgactctga taccagatac 180
agcccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatcaa caccgcctac 240
ctgcagtgga gcagcctgaa ggcctcggac accgccatat attactgtgc gagacagctg 300
cgatatatca gttcgtcggg tgcttttgat atctggggcc aagggacaat ggtcaccgtc 360
tcttca 366

<210> 6058
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6058
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Glu Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Thr Phe
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Phe Val Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Asn Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Ile Tyr Tyr Cys
                85   90   95
Ala Arg Gln Leu Arg Tyr Ile Ser Ser Ser Gly Ala Phe Asp Ile Trp
            100   105   110
Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 6059
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6059
ggatacagct ttaccacctt ctgg   24

<210> 6060
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6060
Gly Tyr Ser Phe Thr Thr Phe Trp
 1   5

<210> 6061
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6061
gtctatcctg gtgactctga tacc 24

<210> 6062
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6062
Val Tyr Pro Gly Asp Ser Asp Thr
1 5

<210> 6063
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6063
gcgagacagc tgcgatatat cagttcgtcg ggtgcttttg atatc 45

<210> 6064
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6064
Ala Arg Gln Leu Arg Tyr Ile Ser Ser Ser Gly Ala Phe Asp Ile
1 5 10 15

<210> 6065
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6065
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atcacttgcc gggcaagtca gaccattagt acttatttaa attggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatggt gtttccagtt tgcaaactgg ggtcccatca 180
aggttcagtg gcagtggatc tgtgacagat ttcactctca ccgtcagcag tctgcaacct 240
gaagattttg catcttacta ctgtcaacag acttacagtc ttccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 6066
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6066
Asp Ile Leu 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 Thr Ile Ser Thr Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Gly Val Ser Ser Leu Gln Thr Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Val Thr Asp Phe Thr Leu Thr Val Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Ser Tyr Tyr Cys Gln Gln Thr Tyr Ser Leu Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 6067
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6067
cagaccatta gtacttat 18

<210> 6068
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6068
Gln Thr Ile Ser Thr Tyr
 1   5

<210> 6069
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6069
ggtgtttcc   9

<210> 6070
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6070
Gly Val Ser
 1

<210> 6071
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6071
caacagactt acagtcttcc gctcact   27

<210> 6072
<211> 9
<212> PRT
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<220>
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<400> 6072
Gln Gln Thr Tyr Ser Leu Pro Leu Thr
 1   5

<210> 6073
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6073
gaggtgcagc tggtggagtc tggagcagag gtgaaaaagc ccggggagtc tctgaagatc 60
tcctgtaagg gttctggata cacctttacc aactactggc tcggctgggt gcgccagatg 120
cccgggaaag gcctggaatg gatgggattc atccatcctt ctgactctga taccagatac 180
agtccgtcct tccaaggcct ggtcaccatg tcagccgaca agtccatcac caccgcctac 240
ctgcagtgga gcagcctgaa ggcctcggac accgccatgt attactgtgc gagacagctg 300
cgttatatta cctcgtcggg cgcttttgat atctggggcc aagggacaat ggtcaccgtc 360
tcttca   366

<210> 6074
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6074
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Asn Tyr
            20   25   30
Trp Leu Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Phe Ile His Pro Ser Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Leu Val Thr Met Ser Ala Asp Lys Ser Ile Thr Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
                85   90   95
Ala Arg Gln Leu Arg Tyr Ile Thr Ser Ser Gly Ala Phe Asp Ile Trp
            100   105   110
Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 6075
<211> 24
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 6075
ggatacacct ttaccaacta ctgg 24

<210> 6076
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 6076
Gly Tyr Thr Phe Thr Asn Tyr Trp
 1 5

<210> 6077
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6077
atccatcctt ctgactctga tacc 24

<210> 6078
<211> 8
<212> PRT
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<220>
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<400> 6078
Ile His Pro Ser Asp Ser Asp Thr
 1 5

<210> 6079
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6079
gcgagacagc tgcgttatat tacctcgtcg ggcgcttttg atatc 45

<210> 6080
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6080
Ala Arg Gln Leu Arg Tyr Ile Thr Ser Ser Gly Ala Phe Asp Ile
1 5 10 15

<210> 6081
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6081
gacatcctga tgacccagtc tccatcctcc ctgtctgcat ctgttggaga cagagtcacc 60
atcacttgcc gggcaagtca gataattagc agctatttaa attggtatca gcaaaaccca 120
gggaaggccc ctaaactcct gatctatgct atatccactt tggaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactttca ccatcagcac tctgcaacct 240
gaagattttg caacttacta ctgtcagcag acttacagtc tcccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 6082
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6082
Asp Ile Leu 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 Ile Ile Ser Ser Tyr
20 25 30
Leu Asn Trp Tyr Gln Gln Asn Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45
Tyr Ala Ile Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Thr Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Thr Tyr Ser Leu Pro Leu
85 90 95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 6083
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6083
cagataatta gcagctat 18

<210> 6084
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6084
Gln Ile Ile Ser Ser Tyr
1 5

<210> 6085
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6085
gctatatcc 9

<210> 6086
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6086
Ala Ile Ser
1

<210> 6087
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6087
cagcagactt acagtctccc gctcact 27

<210> 6088
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6088
Gln Gln Thr Tyr Ser Leu Pro Leu Thr
1 5

<210> 6089
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6089
gaggtgcagc tggtggagtc tggaggaggc ttggtccagc ctgggggtc cctgagactc 60
tcctgtgcag cctctgggtt caccgtcagt aacaattata tgacctgggt ccgccaggct 120
ccagggaagg ggctggaatg ggtctcagtt atttataccg gtgagaccac acactacgca 180
gactccgtga tgggccgatt caccatctcc agagacattt ccaagaacac gctgtatctt 240
caaatgaaca gcctgagaac tgaggacacg gccgtgtatt attgtgcgag agatagaatc 300
acgatccgag actgcggtat ggacgtctgg ggccaaggga ccacggtcac cgtctcctca 360

<210> 6090
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6090

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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 Val Ser Asn Asn
            20                  25                  30
Tyr Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Val Ile Tyr Thr Gly Glu Thr Thr His Tyr Ala Asp Ser Val Met
    50                  55                  60
Gly Arg Phe Thr Ile Ser Arg Asp Ile Ser Lys Asn Thr Leu Tyr Leu
65                  70                  75                  80
Gln Met Asn Ser Leu Arg Thr Glu Asp Thr Ala Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Asp Arg Ile Thr Ile Arg Asp Cys Gly Met Asp Val Trp Gly Gln
            100                 105                 110
Gly Thr Thr Val Thr Val Ser Ser
        115                 120
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<210> 6091
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6091
gggttcaccg tcagtaacaa ttat 24

<210> 6092
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6092
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Gly Phe Thr Val Ser Asn Asn Tyr
 1               5
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<210> 6093
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6093
atttataccg gtgagaccac a 21

<210> 6094
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6094
Ile Tyr Thr Gly Glu Thr Thr
 1   5

<210> 6095
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6095
gcgagagata gaatcacgat ccgagactgc ggtatggacg tc   42

<210> 6096
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6096
Ala Arg Asp Arg Ile Thr Ile Arg Asp Cys Gly Met Asp Val
 1   5   10

<210> 6097
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6097
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atcacttgtc gggcgagtca ggatattagc agctggttag cctggtatca gcagaaacca 120
ggaaaagccc ctaaactcct gatctatatt gcttccagtt tgcaaagtgg ggtcccagca 180
agattcagcg gcagtggatc tgagacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaacagtt tcccgtggac gttcggccaa 300

gggaccaagg tggagatcaa acga 324

<210> 6098
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6098
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Ile Thr Ile Thr Cys Arg Ala Ser Gln Asp 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 Ile Ala Ser Ser Leu Gln Ser Gly Val Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Glu 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 Arg
            100   105

<210> 6099
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6099
caggatatta gcagctgg 18

<210> 6100
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6100
Gln Asp Ile Ser Ser Trp
 1   5

<210> 6101

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

<220>
<223> synthetic

<400> 6101
attgcttcc 9

<210> 6102
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6102
Ile Ala Ser
1

<210> 6103
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6103
caacaggcta acagtttccc gtggacg 27

<210> 6104
<211> 9
<212> PRT
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<220>
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<400> 6104
Gln Gln Ala Asn Ser Phe Pro Trp Thr
1 5

<210> 6105
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6105
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tcctgtaagg attctggata caggttaacc aacaactgga tcggctgggt gcgccaaatg 120
cccgggaaag gcctggagtg gatggggatc atctatcctg gtgactctga tgccagatac 180
agtccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatcaa caccgcctac 240
ctgcagtgga gcagcctgaa ggcctcggac accgccatgt attactgtgc gagacaagcc 300
ggtataagta gaagtatgtg ctttgactcc tggggccagg gaaccatggt caccgtctcc 360
tca 363

<210> 6106
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6106
Glu Val Gln Leu Val Glu Ser Gly Ala Glu Met Arg Lys Pro Gly Glu
 1   5   10   15
Ser Leu Arg Ile Ser Cys Lys Asp Ser Gly Tyr Arg Leu Thr Asn Asn
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Tyr Pro Gly Asp Ser Asp Ala Arg Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Asn Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
                85   90   95
Ala Arg Gln Ala Gly Ile Ser Arg Ser Met Cys Phe Asp Ser Trp Gly
            100   105   110
Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 6107
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6107
ggatacaggt taaccaacaa ctgg 24

<210> 6108
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
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<400> 6108
Gly Tyr Arg Leu Thr Asn Asn Trp
 1   5

<210> 6109
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6109
atctatcctg gtgactctga tgcc   24

<210> 6110
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6110
Ile Tyr Pro Gly Asp Ser Asp Ala
 1   5

<210> 6111
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6111
gcgagacaag ccggtataag tagaagtatg tgctttgact cc   42

<210> 6112
<211> 14
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 6112
Ala Arg Gln Ala Gly Ile Ser Arg Ser Met Cys Phe Asp Ser
 1   5   10

<210> 6113
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6113
gacatcgtga tgacccagtc tccatcttcc ctgtctgcat ctgtaggaga cagagtcacc 60
gtcacttgcc gggcaagtca gagaattaac agttatttaa attggtatca gcaaagacca 120
gggatagtcc ctaagatcct gatctatttt gcatccagtt tgcagagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caatttatta ttgtcaacag agttacattc tcccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga   324

<210> 6114
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6114
Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Val Thr Cys Arg Ala Ser Gln Arg Ile Asn Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Arg Pro Gly Ile Val Pro Lys Ile Leu Ile
        35   40   45
Tyr Phe Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Ile Tyr Tyr Cys Gln Gln Ser Tyr Ile Leu Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 6115
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6115
cagagaatta acagttat 18

<210> 6116
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6116
Gln Arg Ile Asn Ser Tyr
1 5

<210> 6117
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6117
tttgcatcc 9

<210> 6118
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6118
Phe Ala Ser
1

<210> 6119
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6119
caacagagtt acattctccc gtacact 27

<210> 6120
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6120
Gln Gln Ser Tyr Ile Leu Pro Tyr Thr
1 5

<210> 6121
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6121
caggtgcagc tggtggagtc tggaggaggc ttggtccaac ctgggggtc cctgagactc 60
tcctgtgcag cctctgggtt ctccgtcaat agcaattaca tgacctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagtt atctataccg gtgataccac acactacgca 180
gactccgtga agggccgatt caccatctcc agagacactt ccaagaacac cctgtttctt 240
caaatgaaca gcctgagatc tgaggacacg gccgtttatt actgtgcgag agacagaatc 300
acgatccgag attgcggtat ggacgtctgg ggccaaggga ccacggtcac cgtctcctca 360

<210> 6122
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6122
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Val Asn Ser Asn
20 25 30
Tyr Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Val Ile Tyr Thr Gly Asp Thr Thr His Tyr Ala Asp Ser Val Lys
50 55 60
Gly Arg Phe Thr Ile Ser Arg Asp Thr Ser Lys Asn Thr Leu Phe Leu
65 70 75 80

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

<210> 6123
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6123
gggttctccg tcaatagcaa ttac 24

<210> 6124
<211> 8
<212> PRT
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<220>
<223> synthetic

<400> 6124
Gly Phe Ser Val Asn Ser Asn Tyr
1 5

<210> 6125
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6125
atctataccg gtgataccac a 21

<210> 6126
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6126

Ile Tyr Thr Gly Asp Thr Thr
1 5

<210> 6127
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6127
gcgagagaca gaatcacgat ccgagattgc ggtatggacg tc 42

<210> 6128
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6128
Ala Arg Asp Arg Ile Thr Ile Arg Asp Cys Gly Met Asp Val
1 5 10

<210> 6129
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6129
gacatccaga tgacccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca ggatattagc agctggttag cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgtt gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcggtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttacta ctgtcaacag gctaacagtt tcccgtggac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 6130
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6130
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser 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 Val Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Gly 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 Arg
            100   105

<210> 6131
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6131
caggatatta gcagctgg 18

<210> 6132
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6132
Gln Asp Ile Ser Ser Trp
 1   5

<210> 6133
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6133
gttgcatcc 9

<210> 6134
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6134
Val Ala Ser
 1

<210> 6135
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6135
caacaggcta acagtttccc gtggacg 27

<210> 6136
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6136
Gln Gln Ala Asn Ser Phe Pro Trp Thr
 1 5

<210> 6137
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6137
caggtgcagc tggtggagtc tggagcagag gtgaaaaagc ccggggaatc tctgaagatt 60
tcctgtaagg attctggata caggtttacc aagtcctgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatggggatc atctatcctg gtgactctga tatcagatac 180
agcccgtcct tccaaggcca ggtcatcatc tcagccgaca agtccatcaa caccgcctac 240
ctgcagtggg acagcctgaa ggcctcggac accgccatgt attactgtgc gaaacaagcc 300
ggtataacaa gaagtatgtg ctttgactcc tggggccagg gaaccctggt caccgtctcc 360

tca 363

<210> 6138
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6138
Gln Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
1 5 10 15
Ser Leu Lys Ile Ser Cys Lys Asp Ser Gly Tyr Arg Phe Thr Lys Ser
20 25 30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Tyr Pro Gly Asp Ser Asp Ile Arg Tyr Ser Pro Ser Phe
50 55 60
Gln Gly Gln Val Ile Ile Ser Ala Asp Lys Ser Ile Asn Thr Ala Tyr
65 70 75 80
Leu Gln Trp Asp Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95
Ala Lys Gln Ala Gly Ile Thr Arg Ser Met Cys Phe Asp Ser Trp Gly
100 105 110
Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 6139
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6139
ggatacaggt ttaccaagtc ctgg 24

<210> 6140
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6140
Gly Tyr Arg Phe Thr Lys Ser Trp
1 5

<210> 6141
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6141
atctatcctg gtgactctga tatc 24

<210> 6142
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6142
Ile Tyr Pro Gly Asp Ser Asp Ile
1 5

<210> 6143
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6143
gcgaaacaag ccggtataac aagaagtatg tgctttgact cc 42

<210> 6144
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6144
Ala Lys Gln Ala Gly Ile Thr Arg Ser Met Cys Phe Asp Ser
1 5 10

<210> 6145
<211> 324
<212> DNA

<213> Artificial Sequence

<220>
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<400> 6145
gacatcgtga tgacccagtc tccatcttcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaaatca gagaattagc agctatttaa attggtatca gcagagacca 120
gggaaagccc ctaatctcct gatctatttt gcctccagtt tgcagagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ctatcaatag tctgcaacct 240
gaagattttg caacttacta ttgtcaacag agttacagta ttccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 6146
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6146
Asp Ile Val 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 Asn Gln Arg Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Arg Pro Gly Lys Ala Pro Asn Leu Leu Ile
        35   40   45
Tyr Phe Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Ile Pro Tyr
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 6147
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6147
cagagaatta gcagctat 18

<210> 6148
<211> 6
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 6148
Gln Arg Ile Ser Ser Tyr
 1   5

<210> 6149
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6149
tttgcctcc   9

<210> 6150
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6150
Phe Ala Ser
 1

<210> 6151
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6151
caacagagtt acagtattcc gtacact   27

<210> 6152
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6152
Gln Gln Ser Tyr Ser Ile Pro Tyr Thr
 1   5

<210> 6153
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6153
caggtgcagc tggtggagtc ggggggaggc ttggtacagc ctggcaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttcat gattatgcca tacactgggt ccggcaagct 120
ccagggaagg gcctggactg ggtctcaggt attagttgga atagtgatac gatagcctat 180
gcggactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agctgaggac acggccttgt attactgtgc aaaagatact 300
aacgatattt tgactggtta ttataaccct tttgactact ggggccaggg aaccatggtc 360
accgtctcct ca   372

<210> 6154
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6154
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe His Asp Tyr
            20   25   30
Ala Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Asp Trp Val
        35   40   45
Ser Gly Ile Ser Trp Asn Ser Asp Thr Ile Ala Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85   90   95
Ala Lys Asp Thr Asn Asp Ile Leu Thr Gly Tyr Tyr Asn Pro Phe Asp
            100   105   110
Tyr Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 6155
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6155
ggattcacct ttcatgatta tgcc 24

<210> 6156
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6156
Gly Phe Thr Phe His Asp Tyr Ala
 1 5

<210> 6157
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6157
attagttgga atagtgatac gata 24

<210> 6158
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6158
Ile Ser Trp Asn Ser Asp Thr Ile
 1 5

<210> 6159
<211> 51
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 6159
gcaaaagata ctaacgatat tttgactggt tattataacc cttttgacta c 51

<210> 6160
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6160
Ala Lys Asp Thr Asn Asp Ile Leu Thr Gly Tyr Tyr Asn Pro Phe Asp
 1 5 10 15
Tyr

<210> 6161
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6161
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtgggaga cagagtcacc 60
atcacttgcc gggcgagtca gggcattagc aattatttag cctggtatca gcagaaacca 120
gggaaagttc ctaagctcct gatctctgct gcatcgactt tgcaatcggg ggtcccatct 180
cggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaagatgttg caatttatta ctgtcaaaag tataacggtg acccattcac tttcggccct 300
gggaccaagg tggagatcaa acga 324

<210> 6162
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6162
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Asn Tyr
 20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile
 35 40 45
Ser Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly

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    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 Ile Tyr Tyr Cys Gln Lys Tyr Asn Gly Asp Pro Phe
                85                  90                  95
Thr Phe Gly Pro Gly Thr Lys Val Glu Ile Lys Arg
            100                 105


<210> 6163
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6163
cagggcatta gcaattat                                                  18

<210> 6164
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6164
Gln Gly Ile Ser Asn Tyr
 1               5


<210> 6165
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6165
gctgcatcg                                                            9

<210> 6166
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic
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<400> 6166
Ala Ala Ser
 1

<210> 6167
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6167
caaaagtata acggtgaccc attcact 27

<210> 6168
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6168
Gln Lys Tyr Asn Gly Asp Pro Phe Thr
 1 5

<210> 6169
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6169
gaggtgcagc tggtggagtc tggaggaggc ttggtccagc ctgggggtc cctgagactc 60
tcctgtgcag cctctgggtt caccgtcagt aacaattata tgacctgggt ccgtcaggct 120
ccagggaagg ggctggaatg ggtctcagtt atttataccg gtgagaccac acactacgca 180
gactccgtga tgggccgatt caccatctcc agagacattt acaagaacac gctgtatctt 240
caaatgaaca gcctgagaac tgaggacacg gccgtgtatt actgtgcgag agatagaatc 300
acgatccgag actgcggtat ggacgtctgg ggccaaggga ccacggtcac cgtctcctca 360

<210> 6170
<211> 120
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 6170

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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 Val Ser Asn Asn
            20                  25                  30
Tyr Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Val Ile Tyr Thr Gly Glu Thr Thr His Tyr Ala Asp Ser Val Met
    50                  55                  60
Gly Arg Phe Thr Ile Ser Arg Asp Ile Tyr Lys Asn Thr Leu Tyr Leu
65                  70                  75                  80
Gln Met Asn Ser Leu Arg Thr Glu Asp Thr Ala Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Asp Arg Ile Thr Ile Arg Asp Cys Gly Met Asp Val Trp Gly Gln
            100                 105                 110
Gly Thr Thr Val Thr Val Ser Ser
        115                 120
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<210> 6171
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6171
gggttcaccg tcagtaacaa ttat 24

<210> 6172
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6172

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Gly Phe Thr Val Ser Asn Asn Tyr
 1               5
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<210> 6173
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6173
atttataccg gtgagaccac a 21

<210> 6174
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6174
Ile Tyr Thr Gly Glu Thr Thr
1 5

<210> 6175
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6175
gcgagagata gaatcacgat ccgagactgc ggtatggacg tc 42

<210> 6176
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6176
Ala Arg Asp Arg Ile Thr Ile Arg Asp Cys Gly Met Asp Val
1 5 10

<210> 6177
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6177
gacatcctga tgacccagtc tccatcttcc gtgtctgcat ctgtaggaga cagaatcacc 60
atcacttgtc gggcgagtca ggatattagc agctggttag cctggtatca gcagaaacca 120

ggaaaagccc ctaaactcct gatctatgtt gcttccagtt tgcaaagtgg ggtcccagca 180
agattcagcg gcagtggatc tgagacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacaa gattacaatt acccgtggac gttcggccaa 300
gggaccaagg tggagatcaa acga 324

<210> 6178
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6178
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Ile Thr Ile Thr Cys Arg Ala Ser Gln Asp 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 Val Ala Ser Ser Leu Gln Ser Gly Val Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Glu Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Asp Tyr Asn Tyr Pro Trp
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 6179
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6179
caggatatta gcagctgg 18

<210> 6180
<211> 6
<212> PRT
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<220>
<223> synthetic

<400> 6180
Gln Asp Ile Ser Ser Trp
 1   5

<210> 6181
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6181
gttgcttcc 9

<210> 6182
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6182
Val Ala Ser
1

<210> 6183
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6183
ctacaagatt acaattaccc gtggacg 27

<210> 6184
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6184
Leu Gln Asp Tyr Asn Tyr Pro Trp Thr
1 5

<210> 6185
<211> 360

<212> DNA
<213> Artificial Sequence

<220>
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<400> 6185
gaggtgcagc tggtggagtc tggaggaggc ttggtccagc ctgggggtc cctgagactc 60
tcctgtgcag cctctgggtt caccgtcagt aacaattata tgacctgggt ccgccaggct 120
ccagggaagg ggctggaatg ggtctcagtt atttataccg gtgagaccac acactacgca 180
gactccgtga tgggccgatt caccatctcc agagacattt ccaagaacac gctgtatctt 240
caaatgaaca gcctgagaac tgaggacacg gccgtgtatt attgtgcgag agatagaatc 300
acgatccgag actgcggtat ggacgtctgg ggccaaggga ccacggtcac cgtctcctca 360

<210> 6186
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6186
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 Val Ser Asn Asn
            20   25   30
Tyr Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Val Ile Tyr Thr Gly Glu Thr Thr His Tyr Ala Asp Ser Val Met
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Asp Ile Ser Lys Asn Thr Leu Tyr Leu
65   70   75   80
Gln Met Asn Ser Leu Arg Thr Glu Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Arg Ile Thr Ile Arg Asp Cys Gly Met Asp Val Trp Gly Gln
            100   105   110
Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 6187
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6187
gggttcaccg tcagtaacaa ttat 24

<210> 6188
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6188
Gly Phe Thr Val Ser Asn Asn Tyr
 1   5

<210> 6189
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6189
atttataccg gtgagaccac a   21

<210> 6190
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6190
Ile Tyr Thr Gly Glu Thr Thr
 1   5

<210> 6191
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6191
gcgagagata gaatcacgat ccgagactgc ggtatggacg tc   42

<210> 6192
<211> 14
<212> PRT

<213> Artificial Sequence

<220>
<223> synthetic

<400> 6192
Ala Arg Asp Arg Ile Thr Ile Arg Asp Cys Gly Met Asp Val
 1   5   10

<210> 6193
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6193
gacatccaga tgacccagtc tccatcttcc gtgtctgcat ctgtaggaga cagaatcacc 60
atcacttgtc gggcgagtca ggatattagc agctggttag cctggtatca gcagaaacca 120
ggaaaagccc ctaaactcct gatctatatt gcttccagtt tgcaaagtgg ggtcccagca 180
agattcagcg gcagtggatc tgagacagat ttcactctca ccatcagcag cctgcagcct 240
gaagattttg caacttacta ttgtcaacag gctaacagtt tcccgtggac gttcggccaa 300
gggaccaagg tggagatcaa acga   324

<210> 6194
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6194
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Ile Thr Ile Thr Cys Arg Ala Ser Gln Asp 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 Ile Ala Ser Ser Leu Gln Ser Gly Val Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Glu 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 Arg
            100   105

<210> 6195

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

<220>
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<400> 6195
caggatatta gcagctgg 18

<210> 6196
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6196
Gln Asp Ile Ser Ser Trp
1 5

<210> 6197
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6197
attgcttcc 9

<210> 6198
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6198
Ile Ala Ser
1

<210> 6199
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6199
caacaggcta acagtttccc gtggacg 27

<210> 6200
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6200
Gln Gln Ala Asn Ser Phe Pro Trp Thr
1 5

<210> 6201
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6201
gaggtgcagc tggtggagtc tgggggaggc ttggtccagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt agctatgcta tgcactgggt ccgccaggct 120
ccagggaagg gactggaata tgtttcaggt ataagtggta atgggtatag tacatattat 180
gcagactctg tgaagggcag attcaccatc tccagagaca attccaagaa cacgctgtat 240
cttcaaatgg gcagcctgag acctgaggac atgtctgtgt attattgtgc gagaggggca 300
atgactggaa ccctcggagg gtttgactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 6202
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6202
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 His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Val
35 40 45
Ser Gly Ile Ser Gly Asn Gly Tyr 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 Gly Ser Leu Arg Pro Glu Asp Met Ser Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gly Ala Met Thr Gly Thr Leu Gly Gly Phe Asp Tyr Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 6203
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6203
ggattcacct tcagtagcta tgct 24

<210> 6204
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6204
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Gly Phe Thr Phe Ser Ser Tyr Ala
 1               5
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<210> 6205
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6205
ataagtggta atgggtatag taca 24

<210> 6206
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> synthetic

<400> 6206
Ile Ser Gly Asn Gly Tyr Ser Thr
 1   5

<210> 6207
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6207
gcgagagggg caatgactgg aaccctcgga gggtttgact ac   42

<210> 6208
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6208
Ala Arg Gly Ala Met Thr Gly Thr Leu Gly Gly Phe Asp Tyr
 1   5   10

<210> 6209
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6209
gacatccaga tgacccagtc tccatcctca ctgtctgcat ctgtgggaga cagagtcacc 60
atcacttgtc gggcgagtca ggacattaac aattatttag cctggtttca gcagaaacca 120
gggaaagccc ctaagtccct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aagttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaatattttg caacttatta ctgccaacag tataatagtt tcccgtggac gttcggccaa 300
gggaccaagg tggagatcaa acga   324

<210> 6210
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6210
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 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 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 Tyr Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Phe Pro Trp
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 6211
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6211
caggacatta acaattat   18

<210> 6212
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6212
Gln Asp Ile Asn Asn Tyr
 1   5

<210> 6213
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6213
gctgcatcc 9

<210> 6214
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6214
Ala Ala Ser
 1

<210> 6215
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6215
caacagtata atagtttccc gtggacg 27

<210> 6216
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6216
Gln Gln Tyr Asn Ser Phe Pro Trp Thr
 1 5

<210> 6217
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6217
gaggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtacag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg gatggcagat atatggtatg atggaagtaa tacagactat 180

gtagactccg tgaagggccg attcaccatc tcaagagaca attccaagaa cacgttgtat 240
ctccaaatga acagcctgag agtcgaggac acggctgtgt attactgtgc gagagatcgg 300
catagtaaca gctggttaga ctacttagaa tattggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 6218
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6218
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Ala Asp Ile Trp Tyr Asp Gly Ser Asn Thr Asp Tyr Val Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Val Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Arg His Ser Asn Ser Trp Leu Asp Tyr Leu Glu Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 6219
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6219
ggattcacct tcagtagcta tggc 24

<210> 6220
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6220

Gly Phe Thr Phe Ser Ser Tyr Gly
1 5

<210> 6221
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6221
atatggtatg atggaagtaa taca 24

<210> 6222
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6222
Ile Trp Tyr Asp Gly Ser Asn Thr
1 5

<210> 6223
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6223
gcgagagatc ggcatagtaa cagctggtta gactacttag aatat 45

<210> 6224
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6224
Ala Arg Asp Arg His Ser Asn Ser Trp Leu Asp Tyr Leu Glu Tyr
1 5 10 15

<210> 6225
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6225
gacatcctga tgacccagtc tccatcctcc ctgtctgctt ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca ggacattaga aatgatttag gctggtatca gcagacacca 120
gggaaagccc ctaagcgcct gatttatgct gcatccagtt tacaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca cagtcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacaa cataatagtc accctctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 6226
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6226
Asp Ile Leu 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 Arg Asn Asp
            20 25 30
Leu Gly Trp Tyr Gln Gln Thr 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 Val Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser His Pro Leu
                85 90 95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100 105

<210> 6227
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6227
caggacatta gaaatgat 18

<210> 6228
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6228
Gln Asp Ile Arg Asn Asp
 1   5

<210> 6229
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6229
gctgcatcc 9

<210> 6230
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6230
Ala Ala Ser
 1

<210> 6231
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6231
ctacaacata atagtcaccc tctcact 27

<210> 6232
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6232
Leu Gln His Asn Ser His Pro Leu Thr
 1   5

<210> 6233
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6233
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc agctatgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtggtag cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaagaggga 300
tttttggagt ggttattacc cgaatacttc cagcactggg gccagggcac catggtcacc 360
gtctcctca   369

<210> 6234
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6234
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 Ser Gly Gly 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 Tyr Cys
                85   90   95
Ala Lys Glu Gly Phe Leu Glu Trp Leu Leu Pro Glu Tyr Phe Gln His
            100   105   110
Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 6235
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6235
ggattcacct ttagcagcta tgcc 24

<210> 6236
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6236
Gly Phe Thr Phe Ser Ser Tyr Ala
1 5

<210> 6237
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6237
attagtggta gtggtggtag caca 24

<210> 6238
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6238
Ile Ser Gly Ser Gly Gly Ser Thr
1 5

<210> 6239
<211> 48
<212> DNA

<213> Artificial Sequence

<220>
<223> synthetic

<400> 6239
gcgaaagagg gatttttgga gtggttatta cccgaatact tccagcac 48

<210> 6240
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6240
Ala Lys Glu Gly Phe Leu Glu Trp Leu Leu Pro Glu Tyr Phe Gln His
 1   5   10   15

<210> 6241
<211> 327
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6241
gacatcgtga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgta ttactgtcag cagtatggta gctcacctcg gacgttcggc 300
caagggacca aggtggagat caaacga 327

<210> 6242
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6242
Asp Ile Val Met 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
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45

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

<210> 6243
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6243
cagagtgtta gcagcagcta c 21

<210> 6244
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6244
Gln Ser Val Ser Ser Ser Tyr
1 5

<210> 6245
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6245
ggtgcatcc 9

<210> 6246
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6246
Gly Ala Ser
 1

<210> 6247
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6247
cagcagtatg gtagctcacc tcggacg 27

<210> 6248
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6248
Gln Gln Tyr Gly Ser Ser Pro Arg Thr
 1 5

<210> 6249
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6249
caggtgcagc tggtggagtc tggaccagag gtgagaaagc ccggggagtc tctgaggatt 60
tcctgtaagg attctggaaa cagattaacc aacaactgga tcggctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatggggatc atctctcctg gtgactctga tatcagatac 180
agtccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatcaa caccgcctac 240
ctgcagtggt acagcctgaa ggcctcggac accgccatct attattgtgc gagacaagcc 300
ggtataacga gaagtatgtg ctttgactat tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 6250
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6250
Gln Val Gln Leu Val Glu Ser Gly Pro Glu Val Arg Lys Pro Gly Glu
 1   5   10   15
Ser Leu Arg Ile Ser Cys Lys Asp Ser Gly Asn Arg Leu Thr Asn Asn
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Ser Pro Gly Asp Ser Asp Ile Arg Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Asn Thr Ala Tyr
65   70   75   80
Leu Gln Trp Tyr Ser Leu Lys Ala Ser Asp Thr Ala Ile Tyr Tyr Cys
                85   90   95
Ala Arg Gln Ala Gly Ile Thr Arg Ser Met Cys Phe Asp Tyr Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 6251
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6251
ggaaacagat taaccaacaa ctgg   24

<210> 6252
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6252
Gly Asn Arg Leu Thr Asn Asn Trp
 1   5

<210> 6253
<211> 24
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 6253
atctctcctg gtgactctga tatc 24

<210> 6254
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<400> 6254
Ile Ser Pro Gly Asp Ser Asp Ile
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<210> 6255
<211> 42
<212> DNA
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gcgagacaag ccggtataac gagaagtatg tgctttgact at 42

<210> 6256
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6256
Ala Arg Gln Ala Gly Ile Thr Arg Ser Met Cys Phe Asp Tyr
1 5 10

<210> 6257
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6257
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gtcacttgcc gggcaagtca gagaattaac agctatttaa attggtatca gcaaagacca 120
gggatagccc ctaagctcct gatctatttt gcatccagtt tacagagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgctacct 240
gaagattttg caatttacta ctgtcaacag acttacatta tcccgtacac ttttggccag 300
gggaccaagg tggagatcaa acga 324

<210> 6258
<211> 108
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<400> 6258
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 1 5 10 15
Asp Arg Val Thr Val Thr Cys Arg Ala Ser Gln Arg Ile Asn Ser Tyr
            20 25 30
Leu Asn Trp Tyr Gln Gln Arg Pro Gly Ile Ala Pro Lys Leu Leu Ile
        35 40 45
Tyr Phe Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Leu Pro
65 70 75 80
Glu Asp Phe Ala Ile Tyr Tyr Cys Gln Gln Thr Tyr Ile Ile Pro Tyr
                85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100 105

<210> 6259
<211> 18
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<213> Artificial Sequence

<220>
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<400> 6259
cagagaatta acagctat 18

<210> 6260
<211> 6
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<220>
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<400> 6260
Gln Arg Ile Asn Ser Tyr

1 5

<210> 6261
<211> 9
<212> DNA
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<220>
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<400> 6261
tttgcatcc 9

<210> 6262
<211> 3
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<400> 6262
Phe Ala Ser
1

<210> 6263
<211> 27
<212> DNA
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<220>
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<400> 6263
caacagactt acattatccc gtacact 27

<210> 6264
<211> 9
<212> PRT
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<220>
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<400> 6264
Gln Gln Thr Tyr Ile Ile Pro Tyr Thr
1 5

<210> 6265

<211> 363
<212> DNA
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tcctgtgcag cctctggatt caccttcagt agctatgcta tgcactgggt ccgccaggct 120
ccagggaagg gactggaata tgtttcagct attagtggta gtgggtatag cacatattat 180
gcagactctg tgaagggcag attcaccatc tccagagaca attccaagaa cacgctgtat 240
cttcaaatgg gcagcctgag acctgaggac atggctgtgt attactgtgc gagaggggca 300
atgactggaa ccctcggagg gtttgactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 6266
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 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Val
        35   40   45
Ser Ala Ile Ser Gly Ser Gly Tyr 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 Gly Ser Leu Arg Pro Glu Asp Met Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Ala Met Thr Gly Thr Leu Gly Gly Phe Asp Tyr Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 6267
<211> 24
<212> DNA
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<220>
<223> synthetic

<400> 6267

ggattcacct tcagtagcta tgct 24

<210> 6268
<211> 8
<212> PRT
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<220>
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<400> 6268
Gly Phe Thr Phe Ser Ser Tyr Ala
1 5

<210> 6269
<211> 24
<212> DNA
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<220>
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<400> 6269
attagtggta gtgggtatag caca 24

<210> 6270
<211> 8
<212> PRT
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<220>
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<400> 6270
Ile Ser Gly Ser Gly Tyr Ser Thr
1 5

<210> 6271
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6271
gcgagagggg caatgactgg aaccctcgga gggtttgact ac 42

<210> 6272
<211> 14

<212> PRT
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<220>
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<400> 6272
Ala Arg Gly Ala Met Thr Gly Thr Leu Gly Gly Phe Asp Tyr
 1   5   10

<210> 6273
<211> 324
<212> DNA
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<220>
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<400> 6273
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atcacttgtc gggcgagtca ggacattagc aattatttag cctggtttca gcagaaacca 120
gggaaagccc ctaagtccct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aagttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
gaatttttg caacttatta ctgccaacag tataatagtt tcccgtggac gttcggccaa 300
gggaccaagg tggagatcaa acga   324

<210> 6274
<211> 108
<212> PRT
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<220>
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<400> 6274
Asp Ile Leu Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr
            20   25   30
Leu Ala Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Ser Leu Ile
        35   40   45
Tyr Ala Ala 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 Phe Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Phe Pro Trp
                85   90   95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 6275
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6275
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<210> 6276
<211> 6
<212> PRT
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<220>
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<400> 6276
Gln Asp Ile Ser Asn Tyr
1 5

<210> 6277
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6277
gctgcatcc 9

<210> 6278
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6278
Ala Ala Ser
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<210> 6279
<211> 27
<212> DNA
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<220>
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<400> 6279
caacagtata atagtttccc gtggacg 27

<210> 6280
<211> 9
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<400> 6280
Gln Gln Tyr Asn Ser Phe Pro Trp Thr
1 5

<210> 6281
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<212> DNA
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<220>
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tcctgtaagg gttctgaaaa caactttgcc aactactgga tcgcctgggt gcgccagatg 120
cccgggaaag gcctggagtg gatggggctc atctaccctg gtgactctga taccagatat 180
agtccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatcag taccgcctac 240
ttgcagtgga acagcctgaa gacctcggac acctccatgt attactgtgc gagacagctg 300
cgctatatca cctcgtcggg ttcttttgat atctggggcc aaggaacaat ggtcaccgtc 360
tcttca 366

<210> 6282
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6282
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1 5 10 15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Glu Asn Asn Phe Ala Asn Tyr
20 25 30
Trp Ile Ala Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
35 40 45

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

<210> 6283
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6283
gaaaacaact ttgccaacta ctgg 24

<210> 6284
<211> 8
<212> PRT
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<220>
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<400> 6284
Glu Asn Asn Phe Ala Asn Tyr Trp
1 5

<210> 6285
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6285
atctaccctg gtgactctga tacc 24

<210> 6286
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6286
Ile Tyr Pro Gly Asp Ser Asp Thr
 1   5

<210> 6287
<211> 45
<212> DNA
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<220>
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<400> 6287
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<210> 6288
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6288
Ala Arg Gln Leu Arg Tyr Ile Thr Ser Ser Gly Ser Phe Asp Ile
 1   5   10   15

<210> 6289
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6289
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atcacttgcc gggcaagtca gaccattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctatggt gtatccaatt tgcaaagtgc tgtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag acttacagtc tcccgctcac tttcggcgga 300
gggaccaagg tggaaatcaa acga   324

<210> 6290
<211> 108
<212> PRT
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<220>
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<400> 6290
Asp Ile Val 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 Thr Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Gly Val Ser Asn Leu Gln Ser Ala Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Thr Tyr Ser Leu Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 6291
<211> 18
<212> DNA
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<220>
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<400> 6291
cagaccatta gcagctat   18

<210> 6292
<211> 6
<212> PRT
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<220>
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<400> 6292
Gln Thr Ile Ser Ser Tyr
 1   5

<210> 6293
<211> 9
<212> DNA
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<220>
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<400> 6293
ggtgtatcc 9

<210> 6294
<211> 3
<212> PRT
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<220>
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<400> 6294
Gly Val Ser
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<210> 6295
<211> 27
<212> DNA
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<220>
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<400> 6295
caacagactt acagtctccc gctcact 27

<210> 6296
<211> 9
<212> PRT
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<220>
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<400> 6296
Gln Gln Thr Tyr Ser Leu Pro Leu Thr
1 5

<210> 6297
<211> 372
<212> DNA
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<220>
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<400> 6297
gaggtgcagc tggtggagtc tgggggaggc ttggttcagc ctgggggtc cctgagactc 60
tcctgtgcag cctctagatt cacctttagc agttatgcca tgacctgggt ccgccaggct 120

ccagggaagg ggctggactg ggtctccact attagtgcag gtggtactac cacacactac 180
accccgtccg tgaagggccg gttcaccatc tccagagaca attccaataa aacgctgttt 240
ctgcaaatga gtagcctgag agccgaggac tcggccgtat attactgtgc gaagatggat 300
acagctatgg ccctctatta tttctacggt atggacgtct ggggccaagg gaccacggtc 360
accgtctcct ca 372

<210> 6298
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<212> PRT
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<220>
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<400> 6298
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 Arg Phe Thr Phe Ser Ser Tyr
            20   25   30
Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Asp Trp Val
        35   40   45
Ser Thr Ile Ser Ala Gly Gly Thr Thr Thr His Tyr Thr Pro Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Asn Lys Thr Leu Phe
65   70   75   80
Leu Gln Met Ser Ser Leu Arg Ala Glu Asp Ser Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Met Asp Thr Ala Met Ala Leu Tyr Tyr Phe Tyr Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 6299
<211> 24
<212> DNA
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<220>
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<400> 6299
agattcacct ttagcagtta tgcc 24

<210> 6300
<211> 8
<212> PRT
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<220>
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<400> 6300
Arg Phe Thr Phe Ser Ser Tyr Ala
 1   5

<210> 6301
<211> 24
<212> DNA
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<220>
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<400> 6301
attagtgcag gtggtactac caca   24

<210> 6302
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6302
Ile Ser Ala Gly Gly Thr Thr Thr
 1   5

<210> 6303
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6303
gcgaagatgg atacagctat ggccctctat tatttctacg gtatggacgt c   51

<210> 6304
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6304
Ala Lys Met Asp Thr Ala Met Ala Leu Tyr Tyr Phe Tyr Gly Met Asp
 1   5   10   15
Val

<210> 6305
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6305
gacatcctga tgacccagtc tccatccttc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgct gggccagtca ggacattacc aattatttag cctggtatca gcgaaaacca 120
gggaaagccc ctaaactcct gatctatggt gcatccactt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tggaacggaa ttcactctca caatcagcag cctgcagcct 240
gaggattttg cagtttatta ctgtcaacag cttgatagtt acccgctcac tttcggcgga 300
gggaccaagg tggagatcaa acga 324

<210> 6306
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6306
Asp Ile Leu Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Trp Ala Ser Gln Asp Ile Thr Asn Tyr
            20   25   30
Leu Ala Trp Tyr Gln Arg Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Gly 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 Val Tyr Tyr Cys Gln Gln Leu Asp Ser Tyr Pro Leu
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
            100   105

<210> 6307
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<212> DNA
<213> Artificial Sequence

<220>
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<400> 6307
caggacatta ccaattat 18

<210> 6308
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6308
Gln Asp Ile Thr Asn Tyr
1 5

<210> 6309
<211> 9
<212> DNA
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<220>
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<400> 6309
ggtgcatcc 9

<210> 6310
<211> 3
<212> PRT
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<220>
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<400> 6310
Gly Ala Ser
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<210> 6311
<211> 27
<212> DNA
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<220>
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<400> 6311
caacagcttg atagttaccc gctcact 27

<210> 6312

<211> 9
<212> PRT
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<220>
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<400> 6312
Gln Gln Leu Asp Ser Tyr Pro Leu Thr
 1   5

<210> 6313
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6313
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tcctgtgcag cctctggatt cacctttgat gattatggca tgagctgggt ccgccaagtt 120
ccagggaagg ggctggagtg ggtctctggt attaattgga atggtgatag tagaggttat 180
gcagactctg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240
ctgcaaatga acagtctgag agccgaggac acggccttat atttttgtgc gaaagatggt 300
cctgtaacac cagctgatac ttactggtac ttcgatctct ggggccgtgg caccctggtc 360
accgtctcct ca   372

<210> 6314
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6314
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20   25   30
Gly Met Ser Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Asn Trp Asn Gly Asp Ser Arg Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Phe Cys
                85   90   95
Ala Lys Asp Gly Pro Val Thr Pro Ala Asp Thr Tyr Trp Tyr Phe Asp
            100   105   110

Leu Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 6315
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6315
ggattcacct ttgatgatta tggc 24

<210> 6316
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6316
Gly Phe Thr Phe Asp Asp Tyr Gly
1 5

<210> 6317
<211> 24
<212> DNA
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<220>
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<400> 6317
attaattgga atggtgatag taga 24

<210> 6318
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6318
Ile Asn Trp Asn Gly Asp Ser Arg
1 5

<210> 6319
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6319
gcgaaagatg gtcctgtaac accagctgat acttactggt acttcgatct c 51

<210> 6320
<211> 17
<212> PRT
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<220>
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<400> 6320
Ala Lys Asp Gly Pro Val Thr Pro Ala Asp Thr Tyr Trp Tyr Phe Asp
 1 5 10 15
Leu

<210> 6321
<211> 324
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6321
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atcacttgcc gggccagtca gagtattagt acctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagttact gatctatacg gcgtctactt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctacagcct 240
gatgattttg caacttatta ctgccaaaat tataatagtt attcgatcac cttcggccaa 300
gggacacgac tggagattaa acga 324

<210> 6322
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6322
Asp Ile Leu Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly

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 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Thr Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Thr Ala Ser Thr Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Asn Tyr Asn Ser Tyr Ser Ile
                85                  90                  95
Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg
            100                 105
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<210> 6323
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6323
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<210> 6324
<211> 6
<212> PRT
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<220>
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<400> 6324
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Gln Ser Ile Ser Thr Trp
 1               5
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<210> 6325
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6325
acggcgtct 9

<210> 6326
<211> 3

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 6326
Thr Ala Ser
 1

<210> 6327
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
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<400> 6327
caaaattata atagttattc gatcacc 27

<210> 6328
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
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<400> 6328
Gln Asn Tyr Asn Ser Tyr Ser Ile Thr
 1 5