SEQUENCE LISTING

<110> Regeneron Pharmaceuticals, Inc.

<120> ANTI-BIG-ENDOTHELIN-1 (BIG-ET-1) ANTIBODIES AND USES THEREOF

<130> 7300A-WO

<140> To be assigned
<141> Filed herewith

<150> 61/601,622
<151> 2012-02-22

<150> 61/677,024
<151> 2012-07-30

<160> 437

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tcctgtgcag cctctggatt caccttcagt agttataaca tgaactgggt ccgtcaggct 120
ccagggaagg ggctggagtg ggtctcatcc attagtagta gtagtagtta catatactac 180
gcagactcag tgaagggccg attcaccatc tccagagaca acgccaagaa ctcactgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagataac 300
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20                  25                  30
Asn Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ser Ile Ser Ser Ser Ser Ser Tyr Ile Tyr Tyr Ala Asp Ser Val

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    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 Asn Trp Asn Tyr Ser Phe Asp Tyr Trp Gly Gln Gly Thr
            100                 105                 110
Leu Val Thr Val Ser Ser
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<210> 4
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<400> 4
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<400> 5
attagtagta gtagtagtta cata 24

<210> 6
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<400> 6
Ile Ser Ser Ser Ser Ser Tyr Ile
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 1               5                   10

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ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatcccc 180
gacaggttca gtggcagtgg gtctgggaca gacttcagtc tcaccatcag cagactggag 240
cctgaagatt ttgcactgta ttactgtcag cagtatggta gctcaccgct cactttcggc 300
ggagggacca aggtggagat caaa                                       324

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<400> 10

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            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 Ser Leu Thr Ile Ser Arg Leu Glu
65                  70                  75                  80
Pro Glu Asp Phe Ala Leu Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
                85                  90                  95
Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105
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<210> 12
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<400> 12
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<210> 14
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<220>
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<400> 14
Gly Ala Ser
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<210> 15
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<400> 16
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ccagggaagg ggctggagtg catctcagct attagtggca gtggttatag cacatactac 180
gcagactcca tgaagggccg gttctccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga accgcctgag agccgaggac acggccgttt attactgtac gaaaggggggc 300
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tcctca 366

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


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<220>
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<400> 19
ggattcacct ttagcagcta tgcc 24

<210> 20
<211> 8
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<220>
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<400> 20
Gly Phe Thr Phe Ser Ser Tyr Ala
 1               5


<210> 21
<211> 24
<212> DNA
<213> Artificial Sequence

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<223> Synthetic

<400> 21
attagtggca gtggttatag caca 24

<210> 22
<211> 8
<212> PRT
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<220>
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<400> 22
Ile Ser Gly Ser Gly Tyr Ser Thr
1 5

<210> 23
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<212> DNA
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<400> 23
acgaaagggg gccgaatttt ggagtggtta ttaccctttg acttc 45

<210> 24
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<212> PRT
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<400> 24
Thr Lys Gly Gly Arg Ile Leu Glu Trp Leu Leu Pro Phe Asp Phe
1 5 10 15

<210> 25
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<212> DNA
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<400> 25
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atctcctgcc ggtctagtca aagcctcgta tacagtgatg gaaacaccta cttgatttgg 120
tttcagcaga ggccaggcca atctccaagg cgcctaattt ataaggtttc taaccgggac 180

tctggggtcc cagacagatt cagcggcagt gggtcaggca ctgatttcac actgataatc 240
agcagggtgg aggctgagga tgttgggctt tattactgca tgcaaggtac acactggcct 300
cctactttcg gcggagggac caaggtggag atcaaa 336

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<400> 26
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
1 5 10 15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val Tyr Ser
20 25 30
Asp Gly Asn Thr Tyr Leu Ile 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 Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Ile Ile
65 70 75 80
Ser Arg Val Glu Ala Glu Asp Val Gly Leu Tyr Tyr Cys Met Gln Gly
85 90 95
Thr His Trp Pro Pro Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

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<212> DNA
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<400> 27
caaagcctcg tatacagtga tggaaacacc tac 33

<210> 28
<211> 11
<212> PRT
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<220>
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<400> 28
Gln Ser Leu Val Tyr Ser Asp Gly Asn Thr Tyr
1 5 10

<210> 29

<211> 9
<212> DNA
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<220>
<223> Synthetic

<400> 29
aaggtttct 9

<210> 30
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 30
Lys Val Ser
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<210> 31
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 31
atgcaaggta cacactggcc tcctact 27

<210> 32
<211> 9
<212> PRT
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<220>
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<400> 32
Met Gln Gly Thr His Trp Pro Pro Thr
1 5

<210> 33
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<212> DNA
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ccagggaagg ggctggagtg cgttggccgt attaaaagca gaactgatgg tgggacagtt 180
gactatgttg cacccgtgaa aggcagattc accatctcaa gagatgattc aaaaaacacg 240
ctgtatctgc aaatgaacag cctgaaagcc gaggacacag ccgtttatta ctgtagggct 300
gaccttgact actggggcca gggaaccctg gtcaccgttt cctca 345

<210> 34
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<220>
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Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Val Ser Cys Val Ala Ser Gly Phe Thr Phe Ser Asn Ala
            20                  25                  30
Trp Met Thr Trp Val Arg Gln Thr Pro Gly Lys Gly Leu Glu Cys Val
        35                  40                  45
Gly Arg Ile Lys Ser Arg Thr Asp Gly Gly Thr Val Asp Tyr Val 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 Ala Glu Asp Thr Ala Val Tyr
                85                  90                  95
Tyr Cys Arg Ala Asp Leu Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr
            100                 105                 110
Val Ser Ser
        115


<210> 35
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<400> 35
ggattcactt ttagtaacgc ctgg 24

<210> 36
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<220>
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<400> 36
Gly Phe Thr Phe Ser Asn Ala Trp
 1               5


<210> 37
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<212> DNA
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<400> 37
attaaaagca gaactgatgg tgggacagtt                                        30

<210> 38
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<220>
<223> Synthetic

<400> 38
Ile Lys Ser Arg Thr Asp Gly Gly Thr Val
 1               5                   10


<210> 39
<211> 18
<212> DNA
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<220>
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<400> 39
agggctgacc ttgactac                                                     18

<210> 40
<211> 6
<212> PRT
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<220>
<223> Synthetic

<400> 40
Arg Ala Asp Leu Asp Tyr
 1               5

<210> 41
<211> 336
<212> DNA
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<400> 41
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atctcctgca ggtctagtca aagcctcgta cacagtgatg gaatcaccta cttgaattgg 120
tttcagcaga ggccaggcca atctccaagg cgcctaattt ataagatttc taaccgggac 180
tctggggtcc cagacagatt cagcggcagt gggtcaggca ctgatttcac actgaaattc 240
agcagggtgg aggctgagga tgttggggtt tatttctgca tgcaaggtac acactggccg 300
tacacttttg gccaggggac caagctggag atcaaa 336

<210> 42
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<212> PRT
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<220>
<223> Synthetic

<400> 42
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Ser Leu Gly
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Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20                  25                  30
Asp Gly Ile Thr Tyr Leu Asn Trp Phe Gln Gln Arg Pro Gly Gln Ser
        35                  40                  45
Pro Arg Arg Leu Ile Tyr Lys Ile 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 Phe
65                  70                  75                  80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Phe Cys Met Gln Gly
                85                  90                  95
Thr His Trp Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100                 105                 110

<210> 43
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<212> DNA
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<220>
<223> Synthetic

<400> 43
caaagcctcg tacacagtga tggaatcacc tac 33

<210> 44
<211> 11

<212> PRT
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<400> 44
Gln Ser Leu Val His Ser Asp Gly Ile Thr Tyr
 1               5                  10


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<212> DNA
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<223> Synthetic

<400> 45
aagatttct                                                                  9

<210> 46
<211> 3
<212> PRT
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<223> Synthetic

<400> 46
Lys Ile Ser
 1


<210> 47
<211> 27
<212> DNA
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<220>
<223> Synthetic

<400> 47
atgcaaggta cacactggcc gtacact                                              27

<210> 48
<211> 9
<212> PRT
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<220>
<223> Synthetic

<400> 48
Met Gln Gly Thr His Trp Pro Tyr Thr
 1               5


<210> 49
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<212> DNA
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<223> Synthetic

<400> 49
gaggtgcagc tggtggagtc tgggggaggc ttggtaaagc ctgggggggtc ccttagagtc 60
tcctgtgtag cctctggatt cactttttagt aacgcctgga tgacctgggt ccgccagact 120
ccagggaagg ggctggagtg cgttggccgt attaaaagca gaactgatgg tgggacagtt 180
gactatgttg cacccgtgaa aggcagattc accatctcaa gagatgattc aaaaaacacg 240
ctgtatctgc aaatgaacag cctgaaagcc gaggacacag ccgtttatta ctgtagggct 300
gaccttgact actggggcca gggaaccctg gtcaccgttt cctca                 345

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<213> Artificial Sequence

<220>
<223> Synthetic

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


<210> 51
<211> 24
<212> DNA
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<223> Synthetic

<400> 51
ggattcactt ttagtaacgc ctgg 24

<210> 52
<211> 8
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<220>
<223> Synthetic

<400> 52
Gly Phe Thr Phe Ser Asn Ala Trp
1 5

<210> 53
<211> 30
<212> DNA
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<400> 53
attaaaagca gaactgatgg tgggacagtt 30

<210> 54
<211> 10
<212> PRT
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<220>
<223> Synthetic

<400> 54
Ile Lys Ser Arg Thr Asp Gly Gly Thr Val
1 5 10

<210> 55
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<400> 55
agggctgacc ttgactac 18

<210> 56

<211> 6
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<220>
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<400> 56
Arg Ala Asp Leu Asp Tyr
 1               5


<210> 57
<211> 336
<212> DNA
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<400> 57
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tttcagcaga ggccaggcca atctccaagg cgcctaattt ataagatttc taaccgggac 180
tctggggtcc cagacagatt cagcggcagt gggtcaggca ctgatttcac actgaaattc 240
agcagggtgg aggctgagga tgttggggtt tatttctgca tgcaaggtac acactggccg 300
tacacttttg gccaggggac caagctggag atcaaa                          336

<210> 58
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<212> PRT
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<400> 58
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Ser 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 Ile Thr Tyr Leu Asn Trp Phe Gln Gln Arg Pro Gly Gln Ser
        35                  40                  45
Pro Arg Arg Leu Ile Tyr Lys Ile 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 Phe
65                  70                  75                  80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Phe Cys Met Gln Gly
                85                  90                  95
Thr His Trp Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100                 105                 110


<210> 59

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

<220>
<223> Synthetic

<400> 59
caaagcctcg tacacagtga tggaatcacc tac 33

<210> 60
<211> 11
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<220>
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<400> 60
Gln Ser Leu Val His Ser Asp Gly Ile Thr Tyr
1 5 10

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

<220>
<223> Synthetic

<400> 61
aagatttct 9

<210> 62
<211> 3
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<220>
<223> Synthetic

<400> 62
Lys Ile Ser
1

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

<220>
<223> Synthetic

<400> 63
atgcaaggta cacactggcc gtacact 27

<210> 64
<211> 9
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<220>
<223> Synthetic

<400> 64
Met Gln Gly Thr His Trp Pro Tyr Thr
 1               5


<210> 65
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 65
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcaga agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtga taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgttt atttctgtgc gaaagatgaa 300
tataagacca ggggcggcta ctttgactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 66
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<400> 66
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Tyr
            20                  25                  30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ala Val Ile Trp Tyr Asp Gly Ser Asp 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 Phe Cys

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                85                  90                  95
Ala Lys Asp Glu Tyr Lys Thr Arg Gly Gly Tyr Phe Asp Tyr Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 67
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<220>
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<400> 67
ggattcacct tcagaagcta tggc 24

<210> 68
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<212> PPT
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<220>
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<400> 68
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Gly Phe Thr Phe Arg Ser Tyr Gly
 1               5
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<210> 69
<211> 24
<212> DNA
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<220>
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<400> 69
atatggtatg atggaagtga taaa 24

<210> 70
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<212> PRT
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<220>
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<400> 70
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Ile Trp Tyr Asp Gly Ser Asp Lys
 1               5
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<210> 71
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<220>
<223> Synthetic

<400> 71
gcgaaagatg aatataagac cagggggcggc tactttgact ac 42

<210> 72
<211> 14
<212> PRT
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<220>
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<400> 72
Ala Lys Asp Glu Tyr Lys Thr Arg Gly Gly Tyr Phe Asp Tyr
1 5 10

<210> 73
<211> 336
<212> DNA
<213> Artificial Sequence

<220>
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<400> 73
gatgttgtga tgactcagtc tccactctcc ctgcccgtca cccttggaca gccggcctcc 60
atctcctgca ggtctagtca aagcctcgta tacagtgatg gaaacaccta cttgaattgg 120
tttcaacaga ggccaggcca atctccaagg cgcctaattt ataaggtttc taaccgggac 180
tctggggtcc cagacagatt cagcggcagt gggtcaggca ctgatttcac actgaaaatc 240
agcagggtgg aggctgagga tgttggggtt tattactgca tgcaaggtac acactggcct 300
cccactttg gccaggggac caaactggag atcaaa 336

<210> 74
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 74
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
1 5 10 15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val Tyr Ser
20 25 30

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Asp Gly Asn 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 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 Val Tyr Tyr Cys Met Gln Gly
                85                  90                  95
Thr His Trp Pro Pro Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100                 105                 110
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<210> 75
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 75
caaagcctcg tatacagtga tggaaacacc tac 33

<210> 76
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 76
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Gln Ser Leu Val Tyr Ser Asp Gly Asn Thr Tyr
 1               5                  10
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<210> 77
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 77
aaggtttct 9

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

<220>
<223> Synthetic

<400> 78
Lys Val Ser
 1

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

<220>
<223> Synthetic

<400> 79
atgcaaggta cacactggcc tcccact 27

<210> 80
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 80
Met Gln Gly Thr His Trp Pro Pro Thr
 1               5

<210> 81
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 81
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcaga agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtga taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgttt atttctgtgc gaaagatgaa 300
tataagacca ggggcggcta ctttgactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

<210> 82
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 82
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Tyr
            20                  25                  30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ala Val Ile Trp Tyr Asp Gly Ser Asp 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 Phe Cys
                85                  90                  95
Ala Lys Asp Glu Tyr Lys Thr Arg Gly Gly Tyr Phe Asp Tyr Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


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

<220>
<223> Synthetic

<400> 83
ggattcacct tcagaagcta tggc                                          24

<210> 84
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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


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

<220>
<223> Synthetic

<400> 85
atatggtatg atggaagtga taaa                                          24

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

<220>
<223> Synthetic

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


<210> 87
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 87
gcgaaagatg aatataagac caggggcggc tactttgact ac                      42

<210> 88
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 88
Ala Lys Asp Glu Tyr Lys Thr Arg Gly Gly Tyr Phe Asp Tyr
 1               5                  10


<210> 89
<211> 336
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 89
gatgttgtga tgactcagtc tccactctcc ctgcccgtca cccttggaca gccggcctcc 60
atctcctgca ggtctagtca aagcctcgta tacagtgatg gaaacaccta cttgaattgg 120
tttcaacaga ggccaggcca atctccaagg cgcctaattt ataaggtttc taaccgggac 180
tctggggtcc cagacagatt cagcggcagt gggtcaggca ctgatttcac actgaaaatc 240
agcagggtgg aggctgagga tgttggggtt tattactgca tgcaaggtac acactggcct 300
cccacttttg gccagggggac caaactggag atcaaa                            336

<210> 90
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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


<210> 91
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 91
caaagcctcg tatacagtga tggaaacacc tac                                33

<210> 92
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 92
Gln Ser Leu Val Tyr Ser Asp Gly Asn Thr Tyr
 1               5                  10


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

<220>
<223> Synthetic

<400> 93
aaggtttct 9

<210> 94
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 94
Lys Val Ser
1

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

<220>
<223> Synthetic

<400> 95
atgcaaggta cacactggcc tcccact 27

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

<220>
<223> Synthetic

<400> 96
Met Gln Gly Thr His Trp Pro Pro Thr
1 5

<210> 97
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 97
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct 120

ccaggcaagg ggctggagtg ggtggcagtt ttttggtttg atggaagtaa taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cactatttat 240
cttcaaatga acagcctgag agccgaggac acggctatat attactgtgc gagagcttat 300
gatgcttttg atatctgggg ccaagggaca atggtcaccg tctcttca 348

<210> 98
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 98
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 Val Phe 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 Ile 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 Arg Ala Tyr Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr Met Val
100 105 110
Thr Val Ser Ser
115

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

<220>
<223> Synthetic

<400> 99
ggattcacct tcagtaccta tggc 24

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

<220>
<223> Synthetic

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

<210> 101
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 101
ttttggtttg atggaagtaa taaa 24

<210> 102
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 102
Phe Trp Phe Asp Gly Ser Asn Lys
1 5

<210> 103
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 103
gcgagagctt atgatgcttt tgatatc 27

<210> 104
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 104
Ala Arg Ala Tyr Asp Ala Phe Asp Ile
1 5

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

<220>
<223> Synthetic

<400> 105
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtgggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctataag gcgtctagtt tagaagtgg ggtcccatca 180
aggttcagcg gcagtggatc cgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tatagaagtt attctccgac gttcggccaa 300
gggaccaagg tggaaatcaa a 321

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

<220>
<223> Synthetic

<400> 106
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr 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 Arg Ser Tyr Ser Pro
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105


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

<220>
<223> Synthetic

<400> 107
cagagtatta gtagctgg 18

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

<220>

<223> Synthetic

<400> 108
Gln Ser Ile Ser Ser Trp
 1               5


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

<220>
<223> Synthetic

<400> 109
aaggcgtct                                                                  9

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

<220>
<223> Synthetic

<400> 110
Lys Ala Ser
 1


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

<220>
<223> Synthetic

<400> 111
caacagtata gaagttatcc tccgacg                                             27

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

<220>
<223> Synthetic

<400> 112
Gln Gln Tyr Arg Ser Tyr Ser Pro Thr
 1               5

<210> 113
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 113
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgaag cgtctggatt caccttcagt tcctatggca tgcactgggt ccgccaggct 120
ccaggcaagg gactggagtg ggtggcagtt ttttggtatg atggaagtaa taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa tactctgtat 240
cttcaaatga acagcctgac agccgaggac acggctatat attactgtgc gagagcttat 300
gatgcttttg atatctgggg ccaagggaca atggtcaccg tctcttca 348

<210> 114
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 114
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 Glu 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 Phe Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Thr Ala Glu Asp Thr Ala Ile Tyr Tyr Cys
                85                  90                  95
Ala Arg Ala Tyr Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr Met Val
            100                 105                 110
Thr Val Ser Ser
        115


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

<220>
<223> Synthetic

<400> 115
ggattcacct tcagttccta tggc 24

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

<220>
<223> Synthetic

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


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

<220>
<223> Synthetic

<400> 117
ttttggtatg atggaagtaa taaa                                          24

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

<220>
<223> Synthetic

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


<210> 119
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 119
gcgagagctt atgatgcttt tgatatc                                       27

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

<220>
<223> Synthetic

<400> 120
Ala Arg Ala Tyr Asp Ala Phe Asp Ile
 1               5


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

<220>
<223> Synthetic

<400> 121
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctataag gcgtctagtt tagagagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tatagaagtt attctccgac gttcggccaa 300
gggaccaagg tggaaatcaa a                                          321

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

<220>
<223> Synthetic

<400> 122
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser 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 Arg Ser Tyr Ser Pro
                85                  90                  95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105


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

<220>
<223> Synthetic

<400> 123
cagagtatta gtagctgg 18

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

<220>
<223> Synthetic

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

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

<220>
<223> Synthetic

<400> 125
aaggcgtct 9

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

<220>
<223> Synthetic

<400> 126
Lys Ala Ser
1

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

<220>
<223> Synthetic

<400> 127
caacagtata gaagttattc tccgacg 27

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

<220>
<223> Synthetic

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


<210> 129
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 129
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt ctatggtatg atggaagaaa taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctccaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagaagctat 300
gatgcttttg atatctgggg ccaagggaca atggtcaccg tctcttca               348

<210> 130
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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

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

<220>
<223> Synthetic

<400> 131
ggattcacct tcagtagcta tggc 24

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

<220>
<223> Synthetic

<400> 132
Gly Phe Thr Phe Ser Ser Tyr Gly
1 5

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

<220>
<223> Synthetic

<400> 133
atatggtatg atggaagaaa taaa 24

<210> 134
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 134
Leu Trp Tyr Asp Gly Arg Asn Lys
1 5

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

<220>
<223> Synthetic

<400> 135
gcgagaagct atgatgcttt tgatatc 27

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

<220>
<223> Synthetic

<400> 136
Ala Arg Ser Tyr Asp Ala Phe Asp Ile
1 5

<210> 137
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 137
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtttca gcagggacca 120
gggagagccc ctaagctcct gatctataag gcgtctactt tacaaagtgg ggtcccatcg 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tatagaagtt attctccgac gttcggccaa 300
gggaccaagg tggaaatcaa a 321

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

<220>
<223> Synthetic

<400> 138
Asp Ile Gln Met Thr Gln Ser Pro Ser 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 Phe Gln Gln Gly Pro Gly Arg Ala Pro Lys Leu Leu Ile
35 40 45
Tyr Lys 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
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Arg Ser Tyr Ser Pro
85 90 95
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

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

<220>
<223> Synthetic

<400> 139
cagagtatta gtagctgg 18

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

<220>
<223> Synthetic

<400> 140
Gln Ser Ile Ser Ser Trp
1 5

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

<220>
<223> Synthetic

<400> 141
aaggcgtct 9

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

<220>
<223> Synthetic

<400> 142
Lys Ala Ser
1

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

<220>
<223> Synthetic

<400> 143
caacagtata gaagttattc tccgacg 27

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

<220>
<223> Synthetic

<400> 144
Gln Gln Tyr Arg Ser Tyr Ser Pro Thr
1 5

<210> 145
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 145
cagatcacct tgaaggagtc tggtcctccg ctggtgaaac ccacacagac cctcacgctg 60
acctgcaccc tctctgggtt ctcactcaac actaatggaa tgggtgtggg ctggatccgt 120
cagccccccag gaaaggccct ggagtggctt acactcattt attggaatga tgataaacgc 180
tacagcccat ctctgaagac caggctcacc atcaccaagg acacctccaa aaaccaggtg 240
gtccttacaa tgaccaacat ggaccctgtg gacacagcca catattactg tgcacgtttt 300
ggttcgggga cttactgggg ccagggaacc ctggtcactg tctcctca 348

<210> 146
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 146
Gln Ile Thr Leu Lys Glu Ser Gly Pro Pro Leu Val Lys Pro Thr Gln
1 5 10 15
Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Asn Thr Asn
20 25 30

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Gly Met Gly Val Gly Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
        35                  40                  45
Trp Leu Thr Leu 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 Arg Phe Gly Ser Gly Thr Tyr Trp Gly Gln Gly Thr Leu Val
            100                 105                 110
Thr Val Ser Ser
        115
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<210> 147
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 147
gggttctcac tcaacactaa tggaatgggt 30

<210> 148
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 148
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Gly Phe Ser Leu Asn Thr Asn Gly Met Gly
 1               5                   10
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<210> 149
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 149
atttattgga atgatgataa a 21

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

<220>
<223> Synthetic

<400> 150
Ile Tyr Trp Asn Asp Asp Lys
 1               5


<210> 151
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 151
gcacgttttg gttcggggac ttac                                          24

<210> 152
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 152
Ala Arg Phe Gly Ser Gly Thr Tyr
 1               5


<210> 153
<211> 336
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 153
gatattgtga tgactcagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atctcctgca ggtctagtca gagcctcctg catagttatg gatacaactt tttggattgg 120
ttcctgcaga agccagggca gtctccacaa ctcctgatct atttgggttc tcatcgggcc 180
tccggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcagagtgg aggctgagga tgttggggtt tattactgca tgcaagctct acaaactcct 300
ctcactttcg gcggggggac caaggtggag atcaaa                              336

<210> 154
<211> 112
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic

<400> 154
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
Tyr Gly Tyr Asn Phe Leu Asp Trp Phe Leu Gln Lys Pro Gly Gln Ser
        35                  40                  45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser His 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 Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105                 110


<210> 155
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 155
cagagcctcc tgcatagtta tggatacaac ttt 33

<210> 156
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 156
Gln Ser Leu Leu His Ser Tyr Gly Tyr Asn Phe
 1               5                  10


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

<220>
<223> Synthetic

<400> 157
ttgggttct 9

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

<220>
<223> Synthetic

<400> 158
Leu Gly Ser
 1


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

<220>
<223> Synthetic

<400> 159
atgcaagctc tacaaactcc tctcact 27

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

<220>
<223> Synthetic

<400> 160
Met Gln Ala Leu Gln Thr Pro Leu Thr
 1               5


<210> 161
<211> 351
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 161
cagctgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgt ctccttcagc agaagtaatt actattgggg ctggagccgc 120
cagccccccag ggaaggggct ggagtggatt gggactatct actatagtgg gaccacctac 180
tataatccgt ccctcgagag tcgagtcatc atatccgcag acacgtccaa taaccagttc 240
tccctgaagg tgaactctgt gaccgccgca gacacggctg tttattattg tgcggtaaca 300
acttacgata tggacgtctg gggccaaggg accacggtca ccgtctcctc a 351

<210> 162

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

<220>
<223> Synthetic

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

<210> 163
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 163
ggtgtctcct tcagcagaag taattactat 30

<210> 164
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 164
Gly Val Ser Phe Ser Arg Ser Asn Tyr Tyr
 1               5                  10

<210> 165
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 165
atctactata gtgggaccac c 21

<210> 166
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 166
Ile Tyr Tyr Ser Gly Thr Thr
1 5

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

<220>
<223> Synthetic

<400> 167
gcggtaacaa cttacgatat ggacgtc 27

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

<220>
<223> Synthetic

<400> 168
Ala Val Thr Thr Tyr Asp Met Asp Val
1 5

<210> 169
<211> 336
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 169
gatgttgtga tgactcagtc tccactctcc ctgcccgtca cccttggaca gccggcctcc 60

atctcctgca ggtctagtca aagcctcgta tacagtgatg gcaacaccta cttgaattgg 120
tttcagcaga ggccaggcca atctccaagg cgcctaattt ataaggtttc taaccgggac 180
tctggggtcc cagacagatt cagcggcagt gggtcaggca ctgatttcac actgaaaatc 240
agcagggtgg aggctgagga tgttggggtt tattactgca tgcaaggtac acactggccg 300
tacacttttg gccaggggac caagctggag atcaaa 336

<210> 170
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 170
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
 1               5                  10                  15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val Tyr Ser
            20                  25                  30
Asp Gly Asn 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 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 Val Tyr Tyr Cys Met Gln Gly
                85                  90                  95
Thr His Trp Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100                 105                 110

<210> 171
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 171
caaagcctcg tatacagtga tggcaacacc tac 33

<210> 172
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 172
Gln Ser Leu Val Tyr Ser Asp Gly Asn Thr Tyr
 1               5                  10

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

<220>
<223> Synthetic

<400> 173
aaggtttct 9

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

<220>
<223> Synthetic

<400> 174
Lys Val Ser
1

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

<220>
<223> Synthetic

<400> 175
atgcaaggta cacactggcc gtacact 27

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

<220>
<223> Synthetic

<400> 176
Met Gln Gly Thr His Trp Pro Tyr Thr
1 5

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

<220>
<223> Synthetic

<400> 177
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtga taaatactat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagatggg 300
tatggcagca gagggaacta ctttgactac tggggccagg gaaccctggt caccgtctcc 360
tca 363

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

<220>
<223> Synthetic

<400> 178
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20                  25                  30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ala Val Ile Trp Tyr Asp Gly Ser Asp 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 Gly Tyr Gly Ser Arg Gly Asn Tyr Phe Asp Tyr Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 179
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 179
ggattcacct tcagtagcta tggc 24

<210> 180
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 180
Gly Phe Thr Phe Ser Ser Tyr Gly
 1               5


<210> 181
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 181
atatggtatg atggaagtga taaa                                          24

<210> 182
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 182
Ile Trp Tyr Asp Gly Ser Asp Lys
 1               5


<210> 183
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 183
gcgagagatg ggtatggcag cagagggaac tactttgact ac                      42

<210> 184
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 184
Ala Arg Asp Gly Tyr Gly Ser Arg Gly Asn Tyr Phe Asp Tyr

1 5 10

<210> 185
<211> 336
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 185
gatgttgtga tgacccagtc tccactctcc ctgcccgtca cccttggaca gccggcctcc 60
atctcctgca ggtctagtca aagcctcgta tacagtgatg gaaacaccta cttgaattgg 120
tttcagcaga ggccaggcca atctccaagg cgcctaattt ataaggtttc taaccgggac 180
tctggggtcc cagacagatt cagcggcagt gggtcaggca ctgatttcac actgaaaatc 240
agcagggtgg aggctgagga tgttgggggt tattactgca tgcaaggtac acactggcct 300
cccactttcg gcggagggac caaggtggag atcaaa 336

<210> 186
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 186
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
1 5 10 15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val Tyr Ser
20 25 30
Asp Gly Asn 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 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 Val Tyr Tyr Cys Met Gln Gly
85 90 95
Thr His Trp Pro Pro Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 187
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 187
caaagcctcg tatacagtga tggaaacacc tac 33

<210> 188
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 188
Gln Ser Leu Val Tyr Ser Asp Gly Asn Thr Tyr
 1               5                  10


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

<220>
<223> Synthetic

<400> 189
aaggtttct                                                                9

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

<220>
<223> Synthetic

<400> 190
Lys Val Ser
 1


<210> 191
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 191
atgcaaggta cacactggcc tcccact                                            27

<210> 192
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 192
Met Gln Gly Thr His Trp Pro Pro Thr
 1               5


<210> 193
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 193
caggtgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cgtctggatt caccttcggt agctatggca tgcactgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtga tgaatattat 180
acagactccg tgaagggccg attcaccgtc tccagagaca attccaagta cacactgtat 240
ctgcaaatga acagcctgag agccgacgac acggctgtgt attattgtgc gagagatggg 300
tatagaacca gagggaacta ctttgactac tggggccagg gaaccctggt caccgtctcc 360
tca                                                               363

<210> 194
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 194
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 Gly 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 Asp Glu Tyr Tyr Thr Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Val Ser Arg Asp Asn Ser Lys Tyr Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Asp Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Asp Gly Tyr Arg Thr Arg Gly Asn Tyr Phe Asp Tyr Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 195
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 195
ggattcacct tcggtagcta tggc 24

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

<220>
<223> Synthetic

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

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

<220>
<223> Synthetic

<400> 197
atatggtatg atggaagtga tgaa 24

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

<220>
<223> Synthetic

<400> 198
Ile Trp Tyr Asp Gly Ser Asp Glu
 1 5

<210> 199
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 199
gcgagagatg ggtatagaac cagagggaac tactttgact ac 42

<210> 200
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 200
Ala Arg Asp Gly Tyr Arg Thr Arg Gly Asn Tyr Phe Asp Tyr
1 5 10

<210> 201
<211> 336
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 201
gatgttgtga tgactcagtc tccactctcc ctgcccgtcg cccttggaca gccggcctcc 60
atctcctgca ggtctagtca aagcctcgta tacagtgatg gaaacaccta cttgaattgg 120
tttcagcaga ggccaggcca atctccaagg cgcctaattt ataaggtttc taaccgggac 180
tctggggtcc cagacagatt cggcggcagt gggtcaggca ctgatttcac actgaaaatc 240
agcagggtgg aggctgagga tgttggcctt tattactgca tgcaaggtac acactggcct 300
cccactttcg gcggagggac caaggtggag atcaaa 336

<210> 202
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 202
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Ala 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 Asn 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 Asn Arg Asp Ser Gly Val Pro
50 55 60
Asp Arg Phe Gly 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 Gly
85 90 95
Thr His Trp Pro Pro Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys

100 105 110

<210> 203
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 203
caaagcctcg tatacagtga tggaaacacc tac 33

<210> 204
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 204
Gln Ser Leu Val Tyr Ser Asp Gly Asn Thr Tyr
1 5 10

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

<220>
<223> Synthetic

<400> 205
aaggtttct 9

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

<220>
<223> Synthetic

<400> 206
Lys Val Ser
1

<210> 207
<211> 27
<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 207
atgcaaggta cacactggcc tcccact 27

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

<220>
<223> Synthetic

<400> 208
Met Gln Gly Thr His Trp Pro Pro Thr
 1               5


<210> 209
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 209
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc cgggggggtc cctgagactc 60
tcctgtgcag cctctggatt cactttttagc aactatgcca tgagttgggt ccgccaggct 120
cccgggaagg ggctggagtg ggtctcagcg gtcagtggta gtggtgttgg cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga agagcctgag cgccgaggac acggccttat attactgtac gaaaacccta 300
ggtggaaccc acgcttttga tatctggggc caagggacaa tggtcaccgt ctcttca 357

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

<220>
<223> Synthetic

<400> 210
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser 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 Val Ser Gly Ser Gly Val Gly Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

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

<220>
<223> Synthetic

<400> 211
ggattcactt ttagcaacta tgcc 24

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

<220>
<223> Synthetic

<400> 212
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Gly Phe Thr Phe Ser Asn Tyr Ala
 1               5
```

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

<220>
<223> Synthetic

<400> 213
gtcagtggta gtggtgttgg caca 24

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

<220>
<223> Synthetic

<400> 214

Val Ser Gly Ser Gly Val Gly Thr
1 5

<210> 215
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 215
acgaaaaccc taggtggaac ccacgctttt gatatc 36

<210> 216
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 216
Thr Lys Thr Leu Gly Gly Thr His Ala Phe Asp Ile
1 5 10

<210> 217
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 217
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt aggtggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactgtca ccatcaacag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataacagtt attccagttt tggccagggg 300
accaagctgg agatcaaa 318

<210> 218
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 218
Asp Ile Gln 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 Arg Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Val Thr Ile Asn Ser Leu Gln Pro
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Ser
                85                  90                  95
Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100                 105
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<210> 219
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 219
cagagtatta gtaggtgg 18

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

<220>
<223> Synthetic

<400> 220
```
Gln Ser Ile Ser Arg Trp
 1               5
```

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

<220>
<223> Synthetic

<400> 221
aaggcgtct 9

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

<220>
<223> Synthetic

<400> 222
Lys Ala Ser
 1

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

<220>
<223> Synthetic

<400> 223
caacagtata acagttattc agt 24

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

<220>
<223> Synthetic

<400> 224
Gln Gln Tyr Asn Ser Tyr Ser Ser
 1               5

<210> 225
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 225
gaggtgcagc tggtggagtc tgggggaggc ttggtccagc ctgggggggtc cctgagactc 60
tcctgtgcag cctctggatt catctttagc agctatgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtgttgg cacatactac 180
gcagactccg tgaagggccg tttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat atttctgtgc gaaaacccta 300
tctggaaccc atgcttttga tatctggggc caagggacaa tggtcaccgt ctcttca 357

<210> 226
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 226
Glu Val Gln Leu Val Glu Ser Gly Glu 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
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 Val 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 Phe Cys
                85                  90                  95
Ala Lys Thr Leu Ser Gly Thr His Ala Phe Asp Ile Trp Gly Gln Gly
            100                 105                 110
Thr Met Val Thr Val Ser Ser
        115


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

<220>
<223> Synthetic

<400> 227
ggattcatct ttagcagcta tgcc                                          24

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

<220>
<223> Synthetic

<400> 228
Gly Phe Ile Phe Ser Ser Tyr Ala
 1               5


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

<220>
<223> Synthetic

<400> 229
attagtggta gtggtgttgg caca 24

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

<220>
<223> Synthetic

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

<210> 231
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 231
gcgaaaaccc tatctggaac ccatgctttt gatatc 36

<210> 232
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 232
Ala Lys Thr Leu Ser Gly Thr His Ala Phe Asp Ile
1 5 10

<210> 233
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 233
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tacaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagag ttcactctca ccatcagcag cctgcagtct 240
gatgattttg caacttatta ctgccaacag tataatagtt attccacttt tggccagggg 300

accaagctgg agatcaaa 318

<210> 234
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 234
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 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 Ser
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Thr
                85                  90                  95
Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100                 105


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

<220>
<223> Synthetic

<400> 235
cagagtatta gtagctgg 18

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

<220>
<223> Synthetic

<400> 236
Gln Ser Ile Ser Ser Trp
 1               5


<210> 237
<211> 9
<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 237
aaggcgtct 9

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

<220>
<223> Synthetic

<400> 238
Lys Ala Ser
1

<210> 239
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 239
caacagtata atagttatac cact 24

<210> 240
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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

<210> 241
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 241

gaggtgcagc tggtggagtc tgggggaggc ttggtaaagc ctggggggtc cctaagactc 60
tcctgtgcag tctctggatt cactttcagt atcgactgga tgatctgggt ccgccaggct 120
ccagggacgg ggctggaatg ggttggccgt attaaaagaa aaactgatgg tgggacaaca 180
gactacgcag cacccgtaaa aggcagattc accatctcaa gagatgattc aaaaaacacg 240
ctttacctac aaatgaatag cctgaaaacc gaggacacag ccatatatta ctgtgccaca 300
ggaggcttcg agagggtggg ccagggaacc ctggtcaccg tctcctca 348

<210> 242
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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


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

<220>
<223> Synthetic

<400> 243
ggattcactt tcagtatcga ctgg 24

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

<220>
<223> Synthetic

<400> 244

Gly Phe Thr Phe Ser Ile Asp Trp
1 5

<210> 245
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 245
attaaaagaa aaactgatgg tgggacaaca 30

<210> 246
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 246
Ile Lys Arg Lys Thr Asp Gly Gly Thr Thr
1 5 10

<210> 247
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 247
gccacaggag gcttcgagag g 21

<210> 248
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 248
Ala Thr Gly Gly Phe Glu Arg
1 5

<210> 249
<211> 336

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 249
gatgttgtga tgactcagtc tccactctcc ctgcccgtca cccttggaca gccggcctcc 60
atctcctgca ggtctagtca aagcctcgtt tacagtgatg gaaacaccta cttgaattgg 120
tttcagcaga ggccaggcca atctccaagg cgcctaattt ataagatttc taaccgggac 180
tctggggtcc cagacagatt cagcggcagt gggtcaggca ctgatttcac actgaaaatc 240
agcagggtgg aggctgagga tgttgggttt tattactgca tgcagggtac acactggccg 300
ctcactttcg gcggagggac caaggtggag atcaaa 336

<210> 250
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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

<210> 251
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 251
caaagcctcg tttacagtga tggaaacacc tac 33

<210> 252
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 252
Gln Ser Leu Val Tyr Ser Asp Gly Asn Thr Tyr
 1               5                  10


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

<220>
<223> Synthetic

<400> 253
aagatttct                                                                  9

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

<220>
<223> Synthetic

<400> 254
Lys Ile Ser
 1


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

<220>
<223> Synthetic

<400> 255
atgcagggta cacactggcc gctcact                                              27

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

<220>
<223> Synthetic

<400> 256
Met Gln Gly Thr His Trp Pro Leu Thr

1 5

<210> 257
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 257
gaggtgcagc tggtggagtc tgggggaggc ttggtaaagc ctgggggggtc cctaagactc 60
tcctgtgcag tctctggatt cactttcagt atcgactgga tgatctgggt ccgccaggct 120
ccagggacgg ggctggaatg ggttggccgt attaaaagaa aaactgatgg tgggacaaca 180
gactacgcag cacccgtaaa aggcagattc accatctcaa gagatgattc aaaaaacacg 240
ctttacctac aaatgaatag cctgaaaacc gaggacacag ccatatatta ctgtgccaca 300
ggaggcttcg agaggtgggg ccagggaacc ctggtcaccg tctcctca 348

<210> 258
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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

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

<220>
<223> Synthetic

<400> 259
ggattcactt tcagtatcga ctgg 24

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

<220>
<223> Synthetic

<400> 260
Gly Phe Thr Phe Ser Ile Asp Trp
1 5

<210> 261
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 261
attaaaagaa aaactgatgg tgggacaaca 30

<210> 262
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 262
Ile Lys Arg Lys Thr Asp Gly Gly Thr Thr
1 5 10

<210> 263
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 263
gccacaggag gcttcgagag g 21

<210> 264
<211> 7
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 264
Ala Thr Gly Gly Phe Glu Arg
 1               5


<210> 265
<211> 336
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 265
gatgttgtga tgactcagtc tccactctcc ctgcccgtca cccttggaca gccggcctcc 60
atctcctgca ggtctagtca aagcctcgtt tacagtgatg gaaacaccta cttgaattgg 120
tttcagcaga ggccaggcca atctccaagg cgcctaattt ataagatttc taaccgggac 180
tctggggtcc cagacagatt cagcggcagt gggtcaggca ctgatttcac actgaaaatc 240
agcagggtgg aggctgagga tgttgggttt tattactgca tgcagggtac acactggccg 300
ctcactttcg gcggagggac caaggtggag atcaaa                           336

<210> 266
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 266
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
 1               5                  10                  15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val Tyr Ser
            20                  25                  30
Asp Gly Asn Thr Tyr Leu Asn Trp Phe Gln Gln Arg Pro Gly Gln Ser
        35                  40                  45
Pro Arg Arg Leu Ile Tyr Lys Ile 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 Phe 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


<210> 267
<211> 33
<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 267
caaagcctcg tttacagtga tggaaacacc tac 33

<210> 268
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 268
Gln Ser Leu Val Tyr Ser Asp Gly Asn Thr Tyr
 1  5  10

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

<220>
<223> Synthetic

<400> 269
aagatttct 9

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

<220>
<223> Synthetic

<400> 270
Lys Ile Ser
 1

<210> 271
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 271

atgcagggta cacactggcc gctcact 27

<210> 272
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 272
Met Gln Gly Thr His Trp Pro Leu Thr
 1               5


<210> 273
<211> 348
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 273
gaggtgcagc tggtggagtc tgggggaggc ttggtaaagc ctggggggtc ccttagactc 60
tcctgtgcag cctctggatt cactttcagt aacgactgga tgagctgggt ccgccaggct 120
ccagggaagg ggctggaatg ggttggccgt attaaaagga aaactgatgg tgggacaaca 180
gactacgctg cacccgtgaa aggcagattc accatctcaa gagatgattc aaaaaacacg 240
ctgtatctgc aaatgaacag cctgaaaacc gaggacacag ccgtgtatta ctgtaccaca 300
ggaggctacg agaggggggg ccagggaacc ctggtcaccg tctcctca 348

<210> 274
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 274
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Asp
            20                  25                  30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Gly Arg Ile Lys Arg Lys Thr Asp Gly Gly Thr Thr Asp Tyr Ala Ala
    50                  55                  60
Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
65                  70                  75                  80
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
                85                  90                  95
Tyr Cys Thr Thr Gly Gly Tyr Glu Arg Gly Gly Gln Gly Thr Leu Val
            100                 105                 110

Thr Val Ser Ser
        115

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

<220>
<223> Synthetic

<400> 275
ggattcactt tcagtaacga ctgg 24

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

<220>
<223> Synthetic

<400> 276
Gly Phe Thr Phe Ser Asn Asp Trp
 1               5

<210> 277
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 277
attaaaagga aaactgatgg tgggacaaca 30

<210> 278
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 278
Ile Lys Arg Lys Thr Asp Gly Gly Thr Thr
 1               5                  10

<210> 279
<211> 21

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 279
accacaggag gctacgagag g 21

<210> 280
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 280
Thr Thr Gly Gly Tyr Glu Arg
1 5

<210> 281
<211> 336
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 281
gatgttgtga tgactcagtc tccactctcc ctgcccgtca cccttggaca gccggcctcc 60
atctcctgca ggtctagtca aagcctcgta tacagtgatg gaaacaccta cttgaattgg 120
tttcagcaga ggccaggcca atctccaagg cgcctaattt ataaggtttc taaccgggac 180
tctggggtcc cagacagatt cagcggcagt gggtcaggca ctgatttcac actgaaaatc 240
agcagggtgg aggctgagga tgttgggggtt tattactgca tgcagggtac acactggccg 300
ctcactttcg gcggagggac caaggtggag atcaaa 336

<210> 282
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 282
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
1 5 10 15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val Tyr Ser
20 25 30
Asp Gly Asn 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 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 Val 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


<210> 283
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 283
caaagcctcg tatacagtga tggaaacacc tac                                33

<210> 284
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 284
Gln Ser Leu Val Tyr Ser Asp Gly Asn Thr Tyr
 1               5                   10


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

<220>
<223> Synthetic

<400> 285
aaggtttct                                                           9

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

<220>
<223> Synthetic

<400> 286
Lys Val Ser
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1

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

<220>
<223> Synthetic

<400> 287
atgcagggta cacactggcc gctcact 27

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

<220>
<223> Synthetic

<400> 288
Met Gln Gly Thr His Trp Pro Leu Thr
1 5

<210> 289
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 289
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc agctatgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtgttag cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtcc gaaagctcga 300
actggaaccc atgcttttga tatctggggc caagggacaa tggtcaccgt ctcttca 357

<210> 290
<211> 119
<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 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
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 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
Pro Lys Ala Arg Thr Gly Thr His Ala Phe Asp Ile Trp Gly Gln Gly
            100                 105                 110
Thr Met Val Thr Val Ser Ser
        115
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<210> 291
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 291
ggattcacct ttagcagcta tgcc 24

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

<220>
<223> Synthetic

<400> 292
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Gly Phe Thr Phe Ser Ser Tyr Ala
 1               5
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<210> 293
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 293
attagtggta gtggtgttag caca 24

<210> 294
<211> 8
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 294
Ile Ser Gly Ser Gly Val Ser Thr
 1               5


<210> 295
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 295
ccgaaagctc gaactggaac ccatgctttt gatatc                                  36

<210> 296
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 296
Pro Lys Ala Arg Thr Gly Thr His Ala Phe Asp Ile
 1               5                   10


<210> 297
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 297
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt acctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attctacttt cggccctggg 300
accaaagtgg atatcaaa                                                318

<210> 298
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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


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

<220>
<223> Synthetic

<400> 299
cagagtatta gtacctgg                                                 18

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

<220>
<223> Synthetic

<400> 300
Gln Ser Ile Ser Thr Trp
 1               5


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

<220>
<223> Synthetic

<400> 301

aaggcgtct 9

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

<220>
<223> Synthetic

<400> 302
Lys Ala Ser
1

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

<220>
<223> Synthetic

<400> 303
caacagtata atagttatta tact 24

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

<220>
<223> Synthetic

<400> 304
Gln Gln Tyr Asn Ser Tyr Ser Thr
1 5

<210> 305
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 305
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggggtc cctgagactc 60
tcctgtgcag cctctggatt cgcctttagc agctatgcca tgacctgggt ccgccagact 120
ccagggaagg ggctggagtg ggtctcatct attagtggta gtggtggtag cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtgc gaaagctcga 300
actggaaccc atgcttttga tatctggggc caagggacaa tggtcaccgt ctcttca 357

<210> 306
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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


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

<220>
<223> Synthetic

<400> 307
ggattcgcct ttagcagcta tgcc                                          24

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

<220>
<223> Synthetic

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


<210> 309
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 309
attagtggta gtggtggtag caca 24

<210> 310
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 310
Ile Ser Gly Ser Gly Gly Ser Thr
1 5

<210> 311
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 311
gcgaaagctc gaactggaac ccatgctttt gatatc 36

<210> 312
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 312
Ala Lys Ala Arg Thr Gly Thr His Ala Phe Asp Ile
1 5 10

<210> 313
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 313
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attctacttt cggccctggg 300
accaaagtgg atatcaaa 318

<210> 314
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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


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

<220>
<223> Synthetic

<400> 315
cagagtatta gtagctgg 18

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

<220>
<223> Synthetic

<400> 316
Gln Ser Ile Ser Ser Trp

1 5

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

<220>
<223> Synthetic

<400> 317
aaggcgtct 9

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

<220>
<223> Synthetic

<400> 318
Lys Ala Ser
1

<210> 319
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 319
caacagtata atagttatac tact 24

<210> 320
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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

<210> 321
<211> 357
<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 321
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctgggggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc agctctgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggaatg ggtctcagct attagtggta gtggtgttgg cacatactac 180
gcggcctccg tgaagggccg gttcaccatc tccagagaca attccaagaa cattctgtat 240
ctgcaaatga acgacctgag agccgaggac acggccttat attactgtcc gaaagctcga 300
actggaaccc atgcttttga tatctggggc caagggacaa tggtcaccgt ctcttca 357

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

<220>
<223> Synthetic

<400> 322
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser 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 Gly Ser Gly Val Gly Thr Tyr Tyr Ala Ala 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 Asp Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85                  90                  95
Pro Lys Ala Arg Thr Gly Thr His Ala Phe Asp Ile Trp Gly Gln Gly
            100                 105                 110
Thr Met Val Thr Val Ser Ser
        115


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

<220>
<223> Synthetic

<400> 323
ggattcacct ttagcagctc tgcc 24

<210> 324
<211> 8
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic

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


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

<220>
<223> Synthetic

<400> 325
attagtggta gtggtgttgg caca 24

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

<220>
<223> Synthetic

<400> 326
Ile Ser Gly Ser Gly Val Gly Thr
 1               5


<210> 327
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 327
ccgaaagctc gaactggaac ccatgctttt gatatc 36

<210> 328
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 328

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Pro Lys Ala Arg Thr Gly Thr His Ala Phe Asp Ile
 1               5                  10
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<210> 329
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 329
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt acctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attctacttt cggccctggg 300
accaaagtgg atatcaaa 318

<210> 330
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 330
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Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Thr Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Thr
                85                  90                  95
Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
            100                 105
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<210> 331
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 331

cagagtatta gtacctgg 18

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

<220>
<223> Synthetic

<400> 332
Gln Ser Ile Ser Thr Trp
1 5

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

<220>
<223> Synthetic

<400> 333
aaggcgtct 9

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

<220>
<223> Synthetic

<400> 334
Lys Ala Ser
1

<210> 335
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 335
caacagtata atagttattc tact 24

<210> 336
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 336
Gln Gln Tyr Asn Ser Tyr Ser Thr
 1               5


<210> 337
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 337
gaggtgcagt tgttggagtc tgggggaggc ttggtacagc cgggggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc agctatgcca tgagttgggt ccgccaggct 120
ccagggaagg ggctggaatg ggtctcagct attagtggta gtggtgttgg cacatactat 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa tacgttgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgtat attactgtcc gaaagctcga 300
actggaaccc atgcttttga tatctggggc caagggacaa tggtcaccgt ctcttca    357

<210> 338
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 338
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20                  25                  30
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 Val 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
Pro Lys Ala Arg Thr Gly Thr His Ala Phe Asp Ile Trp Gly Gln Gly
            100                 105                 110
Thr Met Val Thr Val Ser Ser
        115


<210> 339
<211> 24

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 339
ggattcacct ttagcagcta tgcc 24

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

<220>
<223> Synthetic

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

<210> 341
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 341
attagtggta gtggtgttgg caca 24

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

<220>
<223> Synthetic

<400> 342
Ile Ser Gly Ser Gly Val Gly Thr
 1 5

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

<220>
<223> Synthetic

<400> 343
ccgaaagctc gaactggaac ccatgctttt gatatc 36

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

<220>
<223> Synthetic

<400> 344
Pro Lys Ala Arg Thr Gly Thr His Ala Phe Asp Ile
1 5 10

<210> 345
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 345
gacatccaga tgacccagtc tccttccacc ttgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt agctggttgg cctggtatca acagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagct attctacttt cggccctggg 300
accaaagtgg atatcaaa 318

<210> 346
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 346
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 Thr
85 90 95
Phe Gly Pro Gly Thr Lys Val Asp Ile Lys

100 105

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

<220>
<223> Synthetic

<400> 347
cagagtatta gtagctgg 18

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

<220>
<223> Synthetic

<400> 348
Gln Ser Ile Ser Ser Trp
1 5

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

<220>
<223> Synthetic

<400> 349
aaggcgtct 9

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

<220>
<223> Synthetic

<400> 350
Lys Ala Ser
1

<210> 351
<211> 24
<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 351
caacagtata atagctattc tact 24

<210> 352
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 352
Gln Gln Tyr Asn Ser Tyr Ser Thr
 1               5


<210> 353
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 353
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc cgggggggtc cctgagactc 60
tcctgtgcag cctctggatt catctttagt agtttatgcca tgacttgggt ccgccaggct 120
ccagggaagg ggctggaatg ggtctcagca attagtggta gtggtgttag cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga acagcctgag aatcgaggac acggccgtat attactgtgg gaaagctcga 300
actggaaccc atgcttttga tatctggggc caagggacaa tggtcaccgt ctcttca 357

<210> 354
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 354
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ile 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 Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60

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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 Ile Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Gly Lys Ala Arg Thr Gly Thr His Ala Phe Asp Ile Trp Gly Gln Gly
            100                 105                 110
Thr Met Val Thr Val Ser Ser
        115
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<210> 355
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 355
ggattcatct ttagtagtta tgcc 24

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

<220>
<223> Synthetic

<400> 356
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Gly Phe Ile Phe Ser Ser Tyr Ala
 1               5
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<210> 357
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 357
attagtggta gtggtgttag caca 24

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

<220>
<223> Synthetic

<400> 358

Ile Ser Gly Ser Gly Val Ser Thr
1 5

<210> 359
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 359
gggaaagctc gaactggaac ccatgctttt gatatc 36

<210> 360
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 360
Gly Lys Ala Arg Thr Gly Thr His Ala Phe Asp Ile
1 5 10

<210> 361
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 361
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt aggtggttgg cctggtatca gcagaaacca 120
ggaaaagccc ctaaactcct gatctataag gcgtctagtt tagaaactgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg gaacttatta ctgccaacag tataatagtt attctagttt cggccctggg 300
accaaagtgg atatcaaa 318

<210> 362
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 362
Asp Ile Gln 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 Arg Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Lys Ala Ser Ser Leu Glu 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
Asp Asp Phe Gly Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Ser
                85                  90                  95
Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
            100                 105
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<210> 363
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 363
cagagtatta gtaggtgg 18

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

<220>
<223> Synthetic

<400> 364
Gln Ser Ile Ser Arg Trp
 1               5

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

<220>
<223> Synthetic

<400> 365
aaggcgtct 9

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

<220>
<223> Synthetic

<400> 366
Lys Ala Ser
 1

<210> 367
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 367
caacagtata atagttattc tagt 24

<210> 368
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 368
Gln Gln Tyr Asn Ser Tyr Ser Ser
 1               5

<210> 369
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 369
gaggtgcagc tggtggagtc tgggggaggc ttggtacagc ctggggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc aactatgcca tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtgttgg cacatactac 180
gcggcctccg tgaagggccg gttcaccatc tccagagaca attccaagaa cactctgtat 240
ctgcaaatga acagcctgag agccgaggac acggccgttt attactgtcc gaaagctcga 300
actggaaccc atgcttttga tatctggggc caagggacaa tggtcaccgt ctcttca 357

<210> 370
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 370
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 Val Gly Thr Tyr 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 Tyr Cys
                85                  90                  95
Pro Lys Ala Arg Thr Gly Thr His Ala Phe Asp Ile Trp Gly Gln Gly
            100                 105                 110
Thr Met Val Thr Val Ser Ser
        115


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

<220>
<223> Synthetic

<400> 371
ggattcacct ttagcaacta tgcc                                          24

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

<220>
<223> Synthetic

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


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

<220>
<223> Synthetic

<400> 373
attagtggta gtggtgttgg caca 24

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

<220>
<223> Synthetic

<400> 374
Ile Ser Gly Ser Gly Val Gly Thr
1 5

<210> 375
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 375
ccgaaagctc gaactggaac ccatgctttt gatatc 36

<210> 376
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 376
Pro Lys Ala Arg Thr Gly Thr His Ala Phe Asp Ile
1 5 10

<210> 377
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 377
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggccagtca gagtattagt acctggttgg cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctataag gcgtctagtt tagaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca ccatcagcag cctgcagcct 240
gatgattttg caacttatta ctgccaacag tataatagtt attctacttt cggccctggg 300

accaaagtgg atatcaaa 318

<210> 378
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 378
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 Thr Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Ser Thr
                85                  90                  95
Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
            100                 105

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

<220>
<223> Synthetic

<400> 379
cagagtatta gtacctgg 18

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

<220>
<223> Synthetic

<400> 380
Gln Ser Ile Ser Thr Trp
 1               5

<210> 381
<211> 9
<212> DNA

<213> Artificial Sequence

<220>
<223> Synthetic

<400> 381
aaggcgtct 9

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

<220>
<223> Synthetic

<400> 382
Lys Ala Ser
1

<210> 383
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 383
caacagtata atagttatac tact 24

<210> 384
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 384
Gln Gln Tyr Asn Ser Tyr Ser Thr
1 5

<210> 385
<211> 345
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 385

gaggtgcagc tggtggagtc tgggggaggc ctggtaaagc ctggggggtc ccttagactc 60
tcctgtgcag cctctggatt cagtttcaat tacgcctgga tgagttgggt ccgccaggct 120
ccaggaaagg ggctggagtg gattggccgt attaagagca aaattaatgg tgggacaaca 180
gactacactg cacccgtgaa aggcagattc accatctcac gagatgattc aaaaaacacg 240
ctgtatctgc aaatgaacag cctgaaaacc gaggacacag ccgtgtatta ctgtaggggt 300
gatgaggact totggggcca gggaaccctg gtcactgtct cctca 345

<210> 386
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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


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

<220>
<223> Synthetic

<400> 387
ggattcagtt tcaattacgc ctgg 24

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

<220>
<223> Synthetic

<400> 388

Gly Phe Ser Phe Asn Tyr Ala Trp
1 5

<210> 389
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 389
attaagagca aaattaatgg tgggacaaca 30

<210> 390
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 390
Ile Lys Ser Lys Ile Asn Gly Gly Thr Thr
1 5 10

<210> 391
<211> 16
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 391
aggggtgatg aggactttc 16

<210> 392
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 392
Arg Gly Asp Glu Asp Phe
1 5

<210> 393
<211> 336

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 393
gatgttgtga tgactcagtc tccactctcc ctgcccgtca cccttggaca gccggcctcc 60
atctcctgca ggtctagtca aagcctcgta tacagtgatg gattcaccta cttgaattgg 120
tttcggcaga ggccaggcca atctccaagg cgcctaattt ataaggtttc taaccgggac 180
tctggggtcc cagacagatt cagcggcagt gggtcaggca ctgatttcac actgagaatc 240
agcagggtgg aggctgagga tgttgggatt tattactgca tgcaaggtac acactggccg 300
tacacttttg gccagggggac caagctggag atcaaa 336

<210> 394
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 394
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
 1               5                  10                  15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val Tyr Ser
            20                  25                  30
Asp Gly Phe Thr Tyr Leu Asn Trp Phe Arg 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 Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Arg 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 Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100                 105                 110


<210> 395
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 395
caaagcctcg tatacagtga tggattcacc tac 33

<210> 396
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 396
Gln Ser Leu Val Tyr Ser Asp Gly Phe Thr Tyr
 1               5                  10


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

<220>
<223> Synthetic

<400> 397
aaggtttct                                                                9

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

<220>
<223> Synthetic

<400> 398
Lys Val Ser
 1


<210> 399
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 399
atgcaaggta cacactggcc gtacact                                           27

<210> 400
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 400
Met Gln Gly Thr His Trp Pro Tyr Thr

1 5

<210> 401
<211> 366
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 401
gaagtgcagt tgttggagtc tgggggggggc ttggtacagc ctgggggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagc agctatgcca tgacctgggt ccgccaggct 120
ccagggaagg ggctggagtg gatctcagct attagtggca gtggttatag cacatactac 180
gcagactcca tgaagggccg gttctccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaatga accgcctgag agccgaggac acggccgttt attactgtac gaaaggggggc 300
cgaattttgg agtggttatt accctttgac ttctggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 402
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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

<210> 403
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 403
ggattcacct ttagcagcta tgcc 24

<210> 404
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 404
Gly Phe Thr Phe Ser Ser Tyr Ala
 1 5

<210> 405
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 405
attagtggca gtggttatag caca 24

<210> 406
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 406
Ile Ser Gly Ser Gly Tyr Ser Thr
 1 5

<210> 407
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 407
acgaaagggg gcggaatttt ggagtggtta ttaccctttg actte 45

<210> 408
<211> 15

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 408
Thr Lys Gly Gly Arg Ile Leu Glu Trp Leu Leu Pro Phe Asp Phe
 1               5                  10                  15


<210> 409
<211> 336
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 409
gatgttgtga tgactcagtc tccactctcc ctgcccgtca cccttggaca gccggcctcc 60
atctcctgcc ggtctagtca aagcctcgta tacagtgatg gaaacaccta cttgatttgg 120
tttcagcaga ggccaggcca atctccaagg cgcctaattt ataaggtttc taaccgggac 180
tctggggtcc cagacagatt cagcggcagt gggtcaggca ctgatttcac actgataatc 240
agcagggtgg aggctgagga tgttgggctt tattactgca tgcaaggtac acactggcct 300
cctactttcg gcggagggac caaggtggag atcaaa                           336

<210> 410
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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


<210> 411
<211> 33

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 411
caaagcctcg tatacagtga tggaaacacc tac 33

<210> 412
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 412
Gln Ser Leu Val Tyr Ser Asp Gly Asn Thr Tyr
 1  5  10

<210> 413
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 413
aaggtttct 9

<210> 414
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 414
Lys Val Ser
 1

<210> 415
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 415
atgcaaggta cacactggcc tcctact 27

<210> 416
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 416
Met Gln Gly Thr His Trp Pro Pro Thr
 1               5


<210> 417
<211> 345
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 417
gaggtgcagc tggtggagtc tgggggaggc ttggtaaagc ctgggggggtc ccttagagtc 60
tcctgtgtag cctctggatt cacttttagt aacgcctgga tgacctgggt ccgccagact 120
ccagggaagg ggctggagtg ggttggccgt attaaaagca gaactgatgg tgggacagtt 180
gactatgttg cacccgtgaa aggcagattc accatctcaa gagatgattc aaaaaacacg 240
ctgtatctgc aaatgaacag cctgaaagcc gaggacacag ccgtttatta ctgtagggct 300
gaccttgact actggggcca gggaaccctg gtcaccgttt cctca 345

<210> 418
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

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

100 105 110
Val Ser Ser
115

<210> 419
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 419
ggattcactt ttagtaacgc ctgg 24

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

<220>
<223> Synthetic

<400> 420
Gly Phe Thr Phe Ser Asn Ala Trp
1 5

<210> 421
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 421
attaaaagca gaactgatgg tgggacagtt 30

<210> 422
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 422
Ile Lys Ser Arg Thr Asp Gly Gly Thr Val
1 5 10

<210> 423

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

<220>
<223> Synthetic

<400> 423
agggctgacc ttgactac 18

<210> 424
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 424
Arg Ala Asp Leu Asp Tyr
 1               5


<210> 425
<211> 336
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 425
gatgttgtga tgactcagtc tccactctcc ctgcccgtct cccttggaca gccggcctcc 60
atctcctgca ggtctagtca aagcctcgta cacagtgatg gaatcaccta cttgaattgg 120
tttcagcaga ggccaggcca atctccaagg cgcctaatti ataagatttc taaccgggac 180
tctggggtcc cagacagatt cagcggcagt gggtcaggca ctgatttcac actgaaattc 240
agcagggtgg aggctgagga tgttggggtt tatttctgca tgcaaggtac acactggccg 300
tacacttttg gccaggggac caagctggag atcaaa 336

<210> 426
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 426
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Ser 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 Ile Thr Tyr Leu Asn Trp Phe Gln Gln Arg Pro Gly Gln Ser
        35                  40                  45

```
Pro Arg Arg Leu Ile Tyr Lys Ile 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 Phe
65                  70                  75                  80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Phe Cys Met Gln Gly
                85                  90                  95
Thr His Trp Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100                 105                 110
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<210> 427
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 427
caaagcctcg tacacagtga tggaatcacc tac 33

<210> 428
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 428
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Gln Ser Leu Val His Ser Asp Gly Ile Thr Tyr
 1               5                   10
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<210> 429
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 429
aagatttct 9

<210> 430
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 430

Lys Ile Ser
 1

<210> 431
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 431
atgcaaggta cacactggcc gtacact 27

<210> 432
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic

<400> 432
Met Gln Gly Thr His Trp Pro Tyr Thr
 1               5

<210> 433
<211> 212
<212> PRT
<213> Homo sapiens

<400> 433
Met Asp Tyr Leu Leu Met Ile Phe Ser Leu Leu Phe Val Ala Cys Gln
 1               5                  10                  15
Gly Ala Pro Glu Thr Ala Val Leu Gly Ala Glu Leu Ser Ala Val Gly
            20                  25                  30
Glu Asn Gly Gly Glu Lys Pro Thr Pro Ser Pro Pro Trp Arg Leu Arg
        35                  40                  45
Arg Ser Lys Arg Cys Ser Cys Ser Ser Leu Met Asp Lys Glu Cys Val
    50                  55                  60
Tyr Phe Cys His Leu Asp Ile Ile Trp Val Asn Thr Pro Glu His Val
65                  70                  75                  80
Val Pro Tyr Gly Leu Gly Ser Pro Arg Ser Lys Arg Ala Leu Glu Asn
                85                  90                  95
Leu Leu Pro Thr Lys Ala Thr Asp Arg Glu Asn Arg Cys Gln Cys Ala
            100                 105                 110
Ser Gln Lys Asp Lys Lys Cys Trp Asn Phe Cys Gln Ala Gly Lys Glu
        115                 120                 125
Leu Arg Ala Glu Asp Ile Met Glu Lys Asp Trp Asn Asn His Lys Lys
    130                 135                 140
Gly Lys Asp Cys Ser Lys Leu Gly Lys Lys Cys Ile Tyr Gln Gln Leu
145                 150                 155                 160

```
Val Arg Gly Arg Lys Ile Arg Arg Ser Ser Glu Glu His Leu Arg Gln
                165                 170                 175
Thr Arg Ser Glu Thr Met Arg Asn Ser Val Lys Ser Ser Phe His Asp
            180                 185                 190
Pro Lys Leu Lys Gly Lys Pro Ser Arg Glu Arg Tyr Val Thr His Asn
        195                 200                 205
Arg Ala His Trp
    210
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<210> 434
<211> 38
<212> PRT
<213> Homo sapiens

<400> 434

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Cys Ser Cys Ser Ser Leu Met Asp Lys Glu Cys Val Tyr Phe Cys His
 1               5                  10                  15
Leu Asp Ile Ile Trp Val Asn Thr Pro Glu His Val Val Pro Tyr Gly
            20                  25                  30
Leu Gly Ser Pro Arg Ser
        35
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<210> 435
<211> 21
<212> PRT
<213> Homo sapiens

<400> 435

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Cys Ser Cys Ser Ser Leu Met Asp Lys Glu Cys Val Tyr Phe Cys His
 1               5                  10                  15
Leu Asp Ile Ile Trp
            20
```

<210> 436
<211> 754
<212> PRT
<213> Homo sapiens

<400> 436

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Met Met Ser Thr Tyr Lys Arg Ala Thr Leu Asp Glu Glu Asp Leu Val
 1               5                  10                  15
Asp Ser Leu Ser Glu Gly Asp Ala Tyr Pro Asn Gly Leu Gln Val Asn
            20                  25                  30
Phe His Ser Pro Arg Ser Gly Gln Arg Cys Trp Ala Ala Arg Thr Gln
        35                  40                  45
Val Glu Lys Arg Leu Val Val Leu Val Val Leu Leu Ala Ala Gly Leu
    50                  55                  60
Val Ala Cys Leu Ala Ala Leu Gly Ile Gln Tyr Gln Thr Arg Ser Pro
65                  70                  75                  80
Ser Val Cys Leu Ser Glu Ala Cys Val Ser Val Thr Ser Ser Ile Leu
                85                  90                  95
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Ser Ser Met Asp Pro Thr Val Asp Pro Cys His Asp Phe Phe Ser Tyr
100 105 110
Ala Cys Gly Gly Trp Ile Lys Ala Asn Pro Val Pro Asp Gly His Ser
115 120 125
Arg Trp Gly Thr Phe Ser Asn Leu Trp Glu His Asn Gln Ala Ile Ile
130 135 140
Lys His Leu Leu Glu Asn Ser Thr Ala Ser Val Ser Glu Ala Glu Arg
145 150 155 160
Lys Ala Gln Val Tyr Tyr Arg Ala Cys Met Asn Glu Thr Arg Ile Glu
165 170 175
Glu Leu Arg Ala Lys Pro Leu Met Glu Leu Ile Glu Arg Leu Gly Gly
180 185 190
Trp Asn Ile Thr Gly Pro Trp Ala Lys Asp Asn Phe Gln Asp Thr Leu
195 200 205
Gln Val Val Thr Ala His Tyr Arg Thr Ser Pro Phe Phe Ser Val Tyr
210 215 220
Val Ser Ala Asp Ser Lys Asn Ser Asn Ser Asn Val Ile Gln Val Asp
225 230 235 240
Gln Ser Gly Leu Gly Leu Pro Ser Arg Asp Tyr Tyr Leu Asn Lys Thr
245 250 255
Glu Asn Glu Lys Val Leu Thr Gly Tyr Leu Asn Tyr Met Val Gln Leu
260 265 270
Gly Lys Leu Leu Gly Gly Gly Asp Glu Glu Ala Ile Arg Pro Gln Met
275 280 285
Gln Gln Ile Leu Asp Phe Glu Thr Ala Leu Ala Asn Ile Thr Ile Pro
290 295 300
Gln Glu Lys Arg Arg Asp Glu Glu Leu Ile Tyr His Lys Val Thr Ala
305 310 315 320
Ala Glu Leu Gln Thr Leu Ala Pro Ala Ile Asn Trp Leu Pro Phe Leu
325 330 335
Asn Thr Ile Phe Tyr Pro Val Glu Ile Asn Glu Ser Glu Pro Ile Val
340 345 350
Val Tyr Asp Lys Glu Tyr Leu Glu Gln Ile Ser Thr Leu Ile Asn Thr
355 360 365
Thr Asp Arg Cys Leu Leu Asn Asn Tyr Met Ile Trp Asn Leu Val Arg
370 375 380
Lys Thr Ser Ser Phe Leu Asp Gln Arg Phe Gln Asp Ala Asp Glu Lys
385 390 395 400
Phe Met Glu Val Met Tyr Gly Thr Lys Lys Thr Cys Leu Pro Arg Trp
405 410 415
Lys Phe Cys Val Ser Asp Thr Glu Asn Asn Leu Gly Phe Ala Leu Gly
420 425 430
Pro Met Phe Val Lys Ala Thr Phe Ala Glu Asp Ser Lys Ser Ile Ala
435 440 445
Thr Glu Ile Ile Leu Glu Ile Lys Lys Ala Phe Glu Glu Ser Leu Ser
450 455 460
Thr Leu Lys Trp Met Asp Glu Glu Thr Arg Lys Ser Ala Lys Glu Lys
465 470 475 480
Ala Asp Ala Ile Tyr Asn Met Ile Gly Tyr Pro Asn Phe Ile Met Asp
485 490 495
Pro Lys Glu Leu Asp Lys Val Phe Asn Asp Tyr Thr Ala Val Pro Asp
500 505 510
Leu Tyr Phe Glu Asn Ala Met Arg Phe Phe Asn Phe Ser Trp Arg Val
515 520 525

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Thr Ala Asp Gln Leu Arg Lys Ala Pro Asn Arg Asp Gln Trp Ser Met
    530                 535                 540
Thr Pro Pro Met Val Asn Ala Tyr Tyr Ser Pro Thr Lys Asn Glu Ile
545                 550                 555                 560
Val Phe Pro Ala Gly Ile Leu Gln Ala Pro Phe Tyr Thr Arg Ser Ser
                565                 570                 575
Pro Lys Ala Leu Asn Phe Gly Gly Ile Gly Val Val Val Gly His Glu
            580                 585                 590
Leu Thr His Ala Phe Asp Asp Gln Gly Arg Glu Tyr Asp Lys Asp Gly
        595                 600                 605
Asn Leu Arg Pro Trp Trp Lys Asn Ser Ser Val Glu Ala Phe Lys Arg
    610                 615                 620
Gln Thr Glu Cys Met Val Glu Gln Tyr Ser Asn Tyr Ser Val Asn Gly
625                 630                 635                 640
Glu Pro Val Asn Gly Arg His Thr Leu Gly Glu Asn Ile Ala Asp Asn
                645                 650                 655
Gly Gly Leu Lys Ala Ala Tyr Arg Ala Tyr Gln Asn Trp Val Lys Lys
            660                 665                 670
Asn Gly Ala Glu His Ser Leu Pro Thr Leu Gly Leu Thr Asn Asn Gln
        675                 680                 685
Leu Phe Phe Leu Gly Phe Ala Gln Val Trp Cys Ser Val Arg Thr Pro
    690                 695                 700
Glu Ser Ser His Glu Gly Leu Ile Thr Asp Pro His Ser Pro Ser Arg
705                 710                 715                 720
Phe Arg Val Ile Gly Ser Leu Ser Asn Ser Lys Glu Phe Ser Glu His
                725                 730                 735
Phe Arg Cys Pro Pro Gly Ser Pro Met Asn Pro Pro His Lys Cys Glu
            740                 745                 750
Val Trp
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<211> 39
<212> PRT
<213> Homo sapiens

<400> 437

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Cys Ser Cys Ser Ser Leu Met Asp Lys Glu Cys Val Tyr Phe Cys His
 1               5                  10                  15
Leu Asp Ile Ile Trp Val Asn Thr Pro Glu Arg Val Val Pro Tyr Gly
            20                  25                  30
Leu Gly Gly Ser Ser Arg Ser
        35
```