SEQUENCE LISTING

<110> WYETH
CAMBRIDGE ANTIBODY TECHNOLOGY LIMITED

<120> ANTIBODIES AGAINST HUMAN IL-22 AND USES THEREFOR

<130> SP9671A

<140>
<141>

<150> 60/774,596
<151> 2006-02-21

<160> 634

<170> PatentIn version 3.3

<210> 1
<211> 178
<212> PRT
<213> Homo sapiens

<400> 1

```
Met Ala Ala Leu Gln Lys Ser Val Ser Ser Phe Leu Met Gly Thr Leu
1               5                  10                  15

Ala Thr Ser Cys Leu Leu Leu Leu Ala Leu Leu Val Gln Gly Gly Ala
            20                  25                  30

Ala Ala Pro Ile Ser Ser His Cys Arg Leu Asp Lys Ser Asn Phe Gln
        35                  40                  45

Gln Pro Tyr Ile Thr Asn Arg Thr Phe Met Leu Ala Lys Glu Ala Ser
    50                  55                  60

Leu Ala Asp Asn Asn Thr Asp Val Arg Leu Ile Gly Glu Lys Leu Phe
65                  70                  75                  80

His Gly Val Ser Met Ser Glu Arg Cys Tyr Leu Met Lys Gln Val Leu
                85                  90                  95

Asn Phe Thr Leu Glu Glu Val Leu Phe Pro Gln Ser Asp Arg Phe Gln
            100                 105                 110

Pro Tyr Met Gln Glu Trp Pro Phe Leu Ala Arg Leu Ser Asn Arg Leu
        115                 120                 125
```

Ser Thr Cys His Ile Glu Gly Asp Asp Leu His Ile Gln Arg Asn Val
130 135 140

Gln Lys Leu Lys Asp Thr Val Lys Lys Leu Gly Glu Ser Gly Glu Ile
145 150 155 160

Lys Ala Ile Gly Glu Leu Asp Leu Leu Phe Met Ser Leu Arg Asn Ala
165 170 175

Cys Ile

<210> 2
<211> 1191
<212> DNA
<213> Homo sapiens

<400> 2
gaattcggcc aaagaggcct acaggttctc cttccccagt caccagttgc tcgagttaga 60

attgtctgca atggccgccc tgcagaaatc tgtgagctct ttccttatgg ggaccctggc 120

caccagctgc ctccttctct tggccctctt ggtacaggga ggagcagctg cgcccatcag 180

ctcccactgc aggcttgaca agtccaactt ccagcagccc tatatcacca accgcacctt 240

catgctggct aaggaggcta gcttggctga taacaacaca gacgttcgtc tcattgggga 300

gaaactgttc cacggagtca gtatgagtga gcgctgctat ctgatgaagc aggtgctgaa 360

cttcaccctt gaagaagtgc tgttccctca atctgatagg ttccagcctt atatgcagga 420

ggtggtgccc ttcctggcca ggctcagcaa caggctaagc acatgtcata ttgaaggtga 480

tgacctgcat atccagagga atgtgcaaaa gctgaaggac acagtgaaaa agcttggaga 540

gagtggagag atcaaagcaa ttggagaact ggatttgctg tttatgtctc tgagaaatgc 600

ctgcatttga ccagagcaaa gctgaaaaat gaataactaa ccccctttcc ctgctagaaa 660

taacaattag atgccccaaa gcgatttttt ttaaccaaaa ggaagatggg aagccaaact 720

ccatcatgat gggtggattc caaatgaacc cctgcgttag ttacaaagga aaccaatgcc 780

acttttgttt ataagaccag aaggtagact ttctaagcat agatatttat tgataacatt 840

tcattgtaac tggtgttcta tacacagaaa acaatttatt ttttaaataa ttgtcttttt 900

ccataaaaaa gattactttc cattccttta ggggaaaaaa cccctaaata gcttcatgtt 960

tccataatca gtactttata tttataaatg tatttattat tattataaga ctgcatttta 1020

tttatatcat tttattaata tggatttatt tatagaaaca tcattcgata ttgctacttg 1080

agtgtaaggc taatattgat atttatgaca ataattatag agctataaca tgtttatttg 1140

acctcaataa acacttggat atcctaaaaa aaaaaaaaaa aaagcggccg c 1191

<210> 3
<211> 179
<212> PRT
<213> Mus musculus

<400> 3

```
Met Ala Val Leu Gln Lys Ser Met Ser Phe Ser Leu Met Gly Thr Leu
1               5                  10                  15

Ala Ala Ser Cys Leu Leu Leu Ile Ala Leu Trp Ala Gln Glu Ala Asn
            20                  25                  30

Ala Leu Pro Val Asn Thr Arg Cys Lys Leu Glu Val Ser Asn Phe Gln
        35                  40                  45

Gln Pro Tyr Ile Val Asn Arg Thr Phe Met Leu Ala Lys Glu Ala Ser
    50                  55                  60

Leu Ala Asp Asn Asn Thr Asp Val Arg Leu Ile Gly Glu Lys Leu Phe
65                  70                  75                  80

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

Asn Phe Thr Leu Glu Asp Val Leu Leu Pro Gln Ser Asp Arg Phe Gln
            100                 105                 110

Pro Tyr Met Gln Glu Val Val Pro Phe Leu Thr Lys Leu Ser Asn Gln
        115                 120                 125

Leu Ser Ser Cys His Ile Ser Gly Asp Asp Gln Asn Ile Gln Lys Asn
    130                 135                 140

Val Arg Arg Leu Lys Glu Thr Val Lys Lys Leu Gly Glu Ser Gly Glu
145                 150                 155                 160

Ile Lys Ala Ile Gly Glu Leu Asp Leu Leu Phe Met Ser Leu Arg Asn
                165                 170                 175

Ala Cys Val
```

<210> 4
<211> 540
<212> DNA
<213> Mus musculus

<400> 4
atggctgtcc tgcagaaatc tatgagtttt tcccttatgg ggactttggc cgccagctgc 60

ctgcttctca ttgccctgtg ggcccaggag gcaaatgcgc tgcccgtcaa cacccggtgc 120

aagcttgagg tgtccaactt ccagcagccg tacatcgtca accgcacctt tatgctggcc 180

aaggaggcca gccttgcaga taacaacaca gacgtccggc tcatcgggga gaaactgttc 240

cgaggagtca gtgctaaaga tcagtgctac ctgatgaagc aggtgctcaa cttcaccctg 300

gaagacgttc tgctccccca gtcagacagg ttccagccct acatgcagga ggtggtacct 360

ttcctgacca aactcagcaa tcagctcagc tcctgtcaca tcagcggtga cgaccagaac 420

atccagaaga atgtcagaag gctgaaggag acagtgaaaa agcttggaga gagtggagag 480

atcaaggcga ttggggaact ggacctgctg tttatgtctc tgagaaatgc ttgcgtctga 540

<210> 5
<211> 119
<212> PRT
<213> Homo sapiens

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

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

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

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

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

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

Ala Arg Gly Leu Trp Val Trp Asp Pro Leu Asp Tyr Trp Gly Arg Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 6
<211> 108
<212> PRT
<213> Homo sapiens

<400> 6
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Glu Gly Ile Tyr His 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 Ala Ser Gly Ala Pro Ser Arg Phe Ser Gly
50 55 60

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

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

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

<210> 7
<211> 245
<212> PRT
<213> Homo sapiens

<400> 7
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Thr Pro Gly Gly
1 5 10 15

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

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

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

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

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

Ala Arg Gly Leu Trp Val Trp Asp Pro Leu Asp Tyr Trp Gly Arg Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
        115                 120                 125

Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser Thr
    130                 135                 140

Leu Ser Ala Ser Ile Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser
145                 150                 155                 160

Glu Gly Ile Tyr His Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
                165                 170                 175

Ala Pro Lys Leu Leu Ile Tyr Lys Ala Ser Ser Leu Ala Ser Gly Ala
            180                 185                 190

Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
        195                 200                 205

Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
    210                 215                 220

Tyr Ser Asn Tyr Pro Leu Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile
225                 230                 235                 240

Lys Arg Ala Ala Ala
                245
```

<210> 8
<211> 5
<212> PRT
<213> Homo sapiens

<400> 8
Asp Tyr Tyr Met Ser
1 5

<210> 9
<211> 17
<212> PRT
<213> Homo sapiens

<400> 9
Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 10
<211> 10
<212> PRT
<213> Homo sapiens

<400> 10
Gly Leu Trp Val Trp Asp Pro Leu Asp Tyr
1 5 10

<210> 11
<211> 11
<212> PRT
<213> Homo sapiens

<400> 11
Arg Ala Ser Glu Gly Ile Tyr His Trp Leu Ala
1 5 10

<210> 12
<211> 7
<212> PRT
<213> Homo sapiens

<400> 12
Lys Ala Ser Ser Leu Ala Ser
1 5

<210> 13
<211> 9
<212> PRT
<213> Homo sapiens

<400> 13
Gln Gln Tyr Ser Asn Tyr Pro Leu Thr
1 5

<210> 14
<211> 357
<212> DNA
<213> Homo sapiens

<400> 14
gaggtgcagt tggtggagtc tgggggaggc ttggtcacgc ctggagggtc cctgagactc 60

tcctgtgcag cctctggatt caccttcagt gactactaca tgagctggat ccgccaggct 120

ccagggaggg ggctggagtg ggtctcagct attagtggta gtggtggtag cacatactac 180

gcagactccg tgaagggccg gatcaccatc tccagagaca acgccaagaa ctcactgtat 240

ctgcaaatga gcagcctgag atctgaggac acggccgtgt attactgtgc gagagggctt 300

tgggtttggg atcctcttga ctactggggc agaggaaccc tggtcaccgt ctcctca 357

<210> 15
<211> 324
<212> DNA
<213> Homo sapiens

<400> 15
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctattggaga cagagtcacc 60

atcacctgcc gggccagtga gggtatttat cactggttgg cctggtatca gcagaagcca 120

gggaaagccc ctaaactcct gatctataag gcctctagtt tagccagtgg ggccccatca 180

aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240

gatgattttg caacttatta ctgccaacaa tatagtaatt atccgctcac tttcggcgga 300

gggaccaagc tggagatcaa acgt 324

<210> 16
<211> 735
<212> DNA
<213> Homo sapiens

<400> 16
gaagtgcagc tggtggagtc tgggggaggc ttggtcacgc ctggagggtc cctgagactc 60

tcctgtgcag cctctggatt caccttcagt gactactaca tgagctggat ccgccaggct 120

ccagggaggg ggctggagtg ggtctcagct attagtggta gtggtggtag cacatactac 180

gcagactccg tgaagggccg gatcaccatc tccagagaca acgccaagaa ctcactgtat 240

ctgcaaatga gcagcctgag atctgaggac acggccgtgt attactgtgc gagagggctt 300

tgggtttggg atcctcttga ctactggggc agaggaaccc tggtcaccgt ctcttcaggt 360

ggaggcggtt caggcggagg tggcagcggc ggtggcggat cggacatcca gatgacccag 420

tctccttcca ccctgtctgc atctattgga gacagagtca ccatcacctg ccgggccagt 480

gagggtattt atcactggtt ggcctggtat cagcagaagc cagggaaagc ccctaaactc 540

ctgatctata aggcctctag tttagccagt ggggccccat caaggttcag cggcagtgga 600

tctgggacag atttcactct caccatcagc agcctgcagc ctgatgattt tgcaacttat 660

tactgccaac aatatagtaa ttatccgctc actttcggcg gagggaccaa gctggagatc 720

aaacgtgcgg ccgca 735

<210> 17
<211> 15
<212> DNA
<213> Homo sapiens

<400> 17
gactactaca tgagc 15

<210> 18
<211> 51
<212> DNA
<213> Homo sapiens

<400> 18
gctattagtg gtagtggtgg tagcacatac tacgcagact ccgtgaaggg c 51

<210> 19
<211> 30
<212> DNA
<213> Homo sapiens

<400> 19
gggctttggg tttgggatcc tcttgactac 30

<210> 20
<211> 33
<212> DNA
<213> Homo sapiens

<400> 20
cgggccagtg agggtattta tcactggttg gcc 33

<210> 21
<211> 21
<212> DNA
<213> Homo sapiens

<400> 21
aaggcctcta gtttagccag t 21

<210> 22
<211> 27
<212> DNA
<213> Homo sapiens

<400> 22
caacaatata gtaattatcc gctcact 27

<210> 23
<211> 119
<212> PRT
<213> Homo sapiens

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Ser Ala Tyr Thr Gly Asn Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

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

Ala Arg Asp Arg Gly Tyr Tyr Asp Ala Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 24
<211> 108
<212> PRT
<213> Homo sapiens

<400> 24
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Glu Gly Ile Tyr His 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 Ala Ser Gly Ala Pro Ser Arg Phe Ser Gly
50 55 60

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

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

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

<210> 25
<211> 245
<212> PRT
<213> Homo sapiens

<400> 25
Gln Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Ile Ser Ala Tyr Thr Gly Asn Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

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

Ala Arg Asp Arg Gly Tyr Tyr Asp Ala Phe Asp Ile Trp Gly Gln Gly
100 105 110

```
Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
        115                 120                 125

Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser Thr
    130                 135                 140

Leu Ser Ala Ser Ile Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser
145                 150                 155                 160

Glu Gly Ile Tyr His Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
                165                 170                 175

Ala Pro Lys Leu Leu Ile Tyr Lys Ala Ser Ser Leu Ala Ser Gly Ala
            180                 185                 190

Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
        195                 200                 205

Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
    210                 215                 220

Tyr Ser Asn Tyr Pro Leu Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile
225                 230                 235                 240

Lys Arg Ala Ala Ala
                245
```

<210> 26
<211> 5
<212> PRT
<213> Homo sapiens

<400> 26
Ser Tyr Gly Ile Ser
1   5

<210> 27
<211> 17
<212> PRT
<213> Homo sapiens

<400> 27
Trp Ile Ser Ala Tyr Thr Gly Asn Thr Asn Tyr Ala Gln Lys Phe Gln
1   5   10   15

Gly

<210> 28
<211> 10
<212> PRT
<213> Homo sapiens

<400> 28
Asp Arg Gly Tyr Tyr Asp Ala Phe Asp Ile
1 5 10

<210> 29
<211> 11
<212> PRT
<213> Homo sapiens

<400> 29
Arg Ala Ser Glu Gly Ile Tyr His Trp Leu Ala
1 5 10

<210> 30
<211> 7
<212> PRT
<213> Homo sapiens

<400> 30
Lys Ala Ser Ser Leu Ala Ser
1 5

<210> 31
<211> 9
<212> PRT
<213> Homo sapiens

<400> 31
Gln Gln Tyr Ser Asn Tyr Pro Leu Thr
1 5

<210> 32
<211> 357
<212> DNA
<213> Homo sapiens

<400> 32
caggtgcagc tggtggagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggtta cacctttacc agttatggta tcagctgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggatgg atcagcgctt acactggtaa cacaaactat 180

gcacagaagt tccagggcag agtcaccatg accacagaca catccacgag cacagcctac 240

atggaactga ggagcctgag atctgacgac acggccgtgt attactgtgc gagagatcgt 300

ggatactatg atgcttttga tatctggggc caaggcaccc tggtcaccgt ctcctca 357

<210> 33
<211> 324
<212> DNA
<213> Homo sapiens

<400> 33
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctattggaga cagagtcacc 60

atcacctgcc gggccagtga gggtatttat cactggttgg cctggtatca gcagaagcca 120

gggaaagccc ctaaactcct gatctataag gcctctagtt tagccagtgg ggccccatca 180

aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240

gatgattttg caacttatta ctgccaacaa tatagtaatt atccgctcac tttcggcgga 300

gggaccaagc tggagatcaa acgt 324

<210> 34
<211> 735
<212> DNA
<213> Homo sapiens

<400> 34
caggtgcagc tggtggagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggtta cacctttacc agttatggta tcagctgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggatgg atcagcgctt acactggtaa cacaaactat 180

gcacagaagt tccagggcag agtcaccatg accacagaca catccacgag cacagcctac 240

atggaactga ggagcctgag atctgacgac acggccgtgt attactgtgc gagagatcgt 300

ggatactatg atgcttttga tatctggggc caaggcaccc tggtcaccgt ctcctcaggt 360

ggaggcggtt caggcggagg tggcagcggc ggtggcggat cggacatcca gatgacccag 420

tctccttcca ccctgtctgc atctattgga gacagagtca ccatcacctg ccgggccagt 480

gagggtattt atcactggtt ggcctggtat cagcagaagc cagggaaagc ccctaaactc 540

ctgatctata aggcctctag tttagccagt ggggccccat caaggttcag cggcagtgga 600

tctgggacag atttcactct caccatcagc agcctgcagc ctgatgattt tgcaacttat 660

tactgccaac aatatagtaa ttatccgctc actttcggcg gagggaccaa gctggagatc 720

aaacgtgcgg ccgca 735

<210> 35
<211> 15
<212> DNA
<213> Homo sapiens

<400> 35
agttatggta tcagc 15

<210> 36
<211> 51
<212> DNA
<213> Homo sapiens

<400> 36
tggatcagcg cttacactgg taacacaaac tatgcacaga agttccaggg c 51

<210> 37
<211> 30
<212> DNA
<213> Homo sapiens

<400> 37
gatcgtggat actatgatgc ttttgatatc 30

<210> 38
<211> 33
<212> DNA
<213> Homo sapiens

<400> 38
cgggccagtg agggtattta tcactggttg gcc 33

<210> 39
<211> 21
<212> DNA
<213> Homo sapiens

<400> 39
aaggcctcta gtttagccag t 21

<210> 40
<211> 27
<212> DNA
<213> Homo sapiens

<400> 40
caacaatata gtaattatcc gctcact 27

<210> 41
<211> 119
<212> PRT
<213> Homo sapiens

<400> 41
Gln Met Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

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

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

Ala His Ile Trp Tyr Asp Gly Ser Asn Glu Lys Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Met Thr Val Ser Arg Asp Asn Ser Arg Asn Thr Leu Tyr
65 70 75 80

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

Ala Thr Glu Gln His Trp Ile Thr Ala Phe Asp Ile Trp Gly Lys Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 42
<211> 111
<212> PRT
<213> Homo sapiens

<400> 42
Gln Ser Val Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr
20 25 30

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

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

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80

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

Ser Thr Arg Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 43
<211> 249
<212> PRT
<213> Homo sapiens

<400> 43
Gln Met Gln Leu Val Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

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

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

Ala His Ile Trp Tyr Asp Gly Ser Asn Glu Lys Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Met Thr Val Ser Arg Asp Asn Ser Arg Asn Thr Leu Tyr
65 70 75 80

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

Ala Thr Glu Gln His Trp Ile Thr Ala Phe Asp Ile Trp Gly Lys Gly
100 105 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Ala Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Gln Ser Val Leu Thr Gln Pro Ala Ser Val
130 135 140

Ser Gly Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser
145 150 155 160

Ser Asp Val Gly Gly Tyr Asn Tyr Val Ser Trp Tyr Gln Gln His Pro
165 170 175

```
Gly Lys Ala Pro Lys Leu Met Ile Tyr Glu Gly Ser Lys Arg Pro Ser
            180                 185                 190

Gly Val Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser
        195                 200                 205

Leu Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys
    210                 215                 220

Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val Phe Gly Gly Gly Thr Lys
225                 230                 235                 240

Leu Thr Val Leu Gly Ala Ala Ala His
                245
```

<210> 44
<211> 5
<212> PRT
<213> Homo sapiens

<400> 44
Asn Tyr Gly Met Tyr
1 5

<210> 45
<211> 17
<212> PRT
<213> Homo sapiens

<400> 45
His Ile Trp Tyr Asp Gly Ser Asn Glu Lys Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 46
<211> 10
<212> PRT
<213> Homo sapiens

<400> 46
Glu Gln His Trp Ile Thr Ala Phe Asp Ile
1 5 10

<210> 47
<211> 14
<212> PRT
<213> Homo sapiens

<400> 47
Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr Asn Tyr Val Ser
1 5 10

<210> 48
<211> 7
<212> PRT
<213> Homo sapiens

<400> 48
Glu Gly Ser Lys Arg Pro Ser
1 5

<210> 49
<211> 10
<212> PRT
<213> Homo sapiens

<400> 49
Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val
1 5 10

<210> 50
<211> 357
<212> DNA
<213> Homo sapiens

<400> 50
cagatgcagc tggtgcagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60

tcctgtgcag cctctggatt caccttcagt aactatggca tgtactgggt ccgccaggct 120

ccaggcaagg ggctggagtg ggtggcacat atttggtatg atggaagtaa tgaaaagtat 180

gcagactccg tgaagggccg aatgaccgtc tccagagaca attccaggaa cacgttgtat 240

ttgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gacagagcaa 300

cactggatta ctgcttttga tatctggggc aaaggcaccc tggtcaccgt ctcctca 357

<210> 51
<211> 333
<212> DNA
<213> Homo sapiens

<400> 51
cagtctgtgc tgactcagcc tgcctccgtg tctgggtctc ctggacagtc gatcaccatc 60

tcctgcactg gaaccagcag tgacgttggt ggttataact atgtctcctg gtaccaacaa 120

cacccaggca aagcccccaa actcatgatt tatgagggca gtaagcggcc ctcaggggtt 180

tctaatcgct tctctggctc caagtctggc aacacggcct ccctgacaat ctctgggctc 240

caggctgagg acgaggctga ttattactgc agctcatata caaccaggag cactcgagtt 300

ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 52
<211> 744
<212> DNA
<213> Homo sapiens

<400> 52
cagatgcagc tggtgcagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60

tcctgtgcag cctctggatt caccttcagt aactatggca tgtactgggt ccgccaggct 120

ccaggcaagg ggctggagtg ggtggcacat atttggtatg atggaagtaa tgaaaagtat 180

gcagactccg tgaagggccg aatgaccgtc tccagagaca attccaggaa cacgttgtat 240

ttgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gacagagcaa 300

cactggatta ctgcttttga tatctggggc aaaggcaccc tggtcaccgt ctcctcaggt 360

ggaggcggtt caggcgcagg tggcagcggc ggtggcggat cgcagtctgt gctgactcag 420

cctgcctccg tgtctgggtc tcctggacag tcgatcacca tctcctgcac tggaaccagc 480

agtgacgttg gtggttataa ctatgtctcc tggtaccaac aacacccagg caaagccccc 540

aaactcatga tttatgaggg cagtaagcgg ccctcagggg tttctaatcg cttctctggc 600

tccaagtctg gcaacacggc ctccctgaca atctctgggc tccaggctga ggacgaggct 660

gattattact gcagctcata tacaaccagg agcactcgag ttttcggcgg agggaccaag 720

ctgaccgtcc taggtgcggc cgca 744

<210> 53
<211> 15
<212> DNA
<213> Homo sapiens

<400> 53
aactatggca tgtac 15

<210> 54
<211> 51
<212> DNA
<213> Homo sapiens

<400> 54
catatttggt atgatggaag taatgaaaag tatgcagact ccgtgaaggg c 51

<210> 55
<211> 30
<212> DNA
<213> Homo sapiens

<400> 55
gagcaacact ggattactgc ttttgatatc 30

<210> 56
<211> 42
<212> DNA
<213> Homo sapiens

<400> 56
actggaacca gcagtgacgt tggtggttat aactatgtct cc 42

<210> 57
<211> 21
<212> DNA
<213> Homo sapiens

<400> 57
gagggcagta agcggccctc a 21

<210> 58
<211> 30
<212> DNA
<213> Homo sapiens

<400> 58
agctcatata caaccaggag cactcgagtt 30

<210> 59
<211> 121
<212> PRT
<213> Homo sapiens

<400> 59
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
1 5 10 15

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

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

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

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

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

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

Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 60
<211> 111
<212> PRT
<213> Homo sapiens

<400> 60
Gln Ala Val Leu Thr Gln Pro Ser Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15

Ser Ile Thr Ile Ser Cys Thr Gly Ala Ser Gly Asp Val Gly Ala Tyr
20 25 30

Asn Phe Val Ser Trp Tyr Gln Gln His Pro Gly Lys Thr Pro Lys Leu
35 40 45

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

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80

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

Phe Ser Val Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu Gly
100 105 110

<210> 61
<211> 250
<212> PRT
<213> Homo sapiens

<400> 61

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
1               5                  10                  15

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

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

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

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

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

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

Arg Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Gly Ser Ala Gln Ala Val Leu Thr Gln Pro
    130                 135                 140

Ser Ser Val Ser Gly Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr
145                 150                 155                 160

Gly Ala Ser Gly Asp Val Gly Ala Tyr Asn Phe Val Ser Trp Tyr Gln
                165                 170                 175

Gln His Pro Gly Lys Thr Pro Lys Leu Ile Ile Tyr Asp Val Asn Lys
            180                 185                 190

Arg Pro Ser Gly Val Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn
        195                 200                 205

Thr Ala Ser Leu Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ser Asp
    210                 215                 220
```

Tyr Tyr Cys Ser Ser Tyr Thr Ser Thr Phe Ser Val Val Phe Gly Gly
225 230 235 240

Gly Thr Lys Val Thr Val Leu Gly Ala Ala
245 250

<210> 62
<211> 5
<212> PRT
<213> Homo sapiens

<400> 62
Asp Tyr Gly Met Asn
1 5

<210> 63
<211> 17
<212> PRT
<213> Homo sapiens

<400> 63
Gly Val Asn Trp Asn Gly Gly Thr Arg Asp Tyr Ala Ala Ser Val Lys
1 5 10 15

Gly

<210> 64
<211> 12
<212> PRT
<213> Homo sapiens

<400> 64
Gly Trp Tyr Ser Gly Ser Phe Tyr Tyr Phe Gly Tyr
1 5 10

<210> 65
<211> 14
<212> PRT
<213> Homo sapiens

<400> 65
Thr Gly Ala Ser Gly Asp Val Gly Ala Tyr Asn Phe Val Ser
1 5 10

<210> 66
<211> 7
<212> PRT
<213> Homo sapiens

<400> 66
Asp Val Asn Lys Arg Pro Ser
1 5

<210> 67
<211> 10
<212> PRT
<213> Homo sapiens

<400> 67
Ser Ser Tyr Thr Ser Thr Phe Ser Val Val
1 5 10

<210> 68
<211> 363
<212> DNA
<213> Homo sapiens

<400> 68
gaggtgcagc tggtggagtc cgggggaggt gtggtacggc ctgggggGTC cctgagactc 60

tcctgtgcag cctctggatt cacctttgac gattatggca tgaactgggt ccgccaagct 120

ccagggaagg ggctggagtg ggtctctggt gttaattgga atggtggtac cagagattat 180

gcagcctccg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga acagtctgag agccgaggac acggccttgt attactgtgc gagaggatgg 300

tatagtggga gcttctacta ctttggctac tggggccgag gaaccctggt caccgtctcc 360

tca 363

<210> 69
<211> 333
<212> DNA
<213> Homo sapiens

<400> 69
caggctgtgc tgactcagcc gtcctccgtg tctgggtctc ctggacagtc gatcaccatc 60

tcctgcactg gagccagcgg tgacgttggt gcttataact ttgtctcctg gtaccaacaa 120

cacccaggca aaaccccCAA actcataatt tatgatgtca ataagcggcc ctcaggggtt 180

tctaatcgct tctctggctc caagtctggc aacacggcct ccctgaccat ctctgggctc 240

caggccgagg acgagtctga ttattactgc agctcatata caagcacctt ctctgtggta 300

tttggcggag ggaccaaggt caccgtccta ggt 333

<210> 70
<211> 750
<212> DNA
<213> Homo sapiens

<400> 70
gaggtgcagc tggtggagtc cgggggaggt gtggtacggc ctgggggggtc cctgagactc 60

tcctgtgcag cctctggatt cacctttgac gattatggca tgaactgggt ccgccaagct 120

ccagggaagg ggctggagtg ggtctctggt gttaatggga atggtggtac cagagattat 180

gcagcctccg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga acagtctgag agccgaggac acggccttgt attactgtgc gagaggatgg 300

tatagtggga gcttctacta ctttggctac tggggccgag gaaccctggt caccgtctcg 360

agtggaggcg gcggttcagg cggaggtggc tctggcggtg gcggaagtgc acaggctgtg 420

ctgactcagc cgtcctccgt gtctgggtct cctggacagt cgatcaccat ctcctgcact 480

ggagccagcg gtgacgttgg tgcttataac tttgtctcct ggtaccaaca acacccaggc 540

aaaaccccca aactcataat ttatgatgtc aataagcggc cctcaggggt ttctaatcgc 600

ttctctggct ccaagtctgg caacacggcc tccctgacca tctctgggct ccaggccgag 660

gacgagtctg attattactg cagctcatat acaagcacct tctctgtggt atttggcgga 720

gggaccaagg tcaccgtcct aggtgcggcc 750

<210> 71
<211> 15
<212> DNA
<213> Homo sapiens

<400> 71
gattatggca tgaac 15

<210> 72
<211> 51
<212> DNA
<213> Homo sapiens

<400> 72
ggtgttaatt ggaatggtgg taccagagat tatgcagcct ccgtgaaggg c 51

<210> 73
<211> 36
<212> DNA
<213> Homo sapiens

<400> 73
ggatggtata gtgggagctt ctactacttt ggctac 36

<210> 74
<211> 42
<212> DNA
<213> Homo sapiens

<400> 74
actggagcca gcggtgacgt tggtgcttat aactttgtct cc 42

<210> 75
<211> 21
<212> DNA
<213> Homo sapiens

<400> 75
gatgtcaata agcggccctc a 21

<210> 76
<211> 30
<212> DNA
<213> Homo sapiens

<400> 76
agctcatata caagcacctt ctctgtggta 30

<210> 77
<211> 119
<212> PRT
<213> Homo sapiens

<400> 77

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

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

Thr Leu Val Thr Val Ser Ser
115

<210> 78
<211> 109
<212> PRT
<213> Homo sapiens

<400> 78
Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Val Ala Pro Gly Lys
1 5 10 15

Thr Ala Thr Ile Thr Cys Gly Gly Asn Asn Phe Arg Asn Lys Arg Val
20 25 30

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

Tyr Asp Ser Asp Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

Arg Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Arg Val Glu Ala Gly
65 70 75 80

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

Pro Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105

<210> 79
<211> 247
<212> PRT
<213> Homo sapiens

<400> 79
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Thr Phe Ser Asp Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Thr Pro Gly Gln Gly Phe Glu Trp Met
35 40 45

Gly Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Trp Val Thr Met Thr Arg Asp Met Ser Asn Thr Thr Ala Tyr
65 70 75 80

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

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

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Ala Gln Ser Val Leu Thr Gln Pro Pro Ser
130 135 140

Val Ser Val Ala Pro Gly Lys Thr Ala Thr Ile Thr Cys Gly Gly Asn
145 150 155 160

Asn Phe Arg Asn Lys Arg Val His Trp Tyr Gln Gln Arg Pro Gly Gln
165 170 175

Ala Pro Val Leu Val Ile Tyr Tyr Asp Ser Asp Arg Pro Ser Gly Ile
180 185 190

Pro Glu Arg Phe Ser Gly Ser Arg Ser Gly Asn Thr Ala Thr Leu Thr
195 200 205

Ile Ser Arg Val Glu Ala Gly Asp Glu Ala Asp Phe Tyr Cys Gln Val
210 215 220

Trp Asp Ser Ser Thr Asp Arg Pro Leu Phe Gly Gly Gly Thr Lys Leu
225 230 235 240

Thr Val Leu Gly Ala Ala Ala
245

<210> 80
<211> 5
<212> PRT
<213> Homo sapiens

<400> 80
Asp Tyr Tyr Ile His
1 5

<210> 81
<211> 17
<212> PRT
<213> Homo sapiens

<400> 81
Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 82
<211> 10
<212> PRT
<213> Homo sapiens

<400> 82
Asp Leu Thr Gly Phe Asp Pro Phe Asp Ile
1 5 10

<210> 83
<211> 11
<212> PRT
<213> Homo sapiens

<400> 83
Gly Gly Asn Asn Phe Arg Asn Lys Arg Val His
1 5 10

<210> 84
<211> 7
<212> PRT
<213> Homo sapiens

<400> 84
Tyr Asp Ser Asp Arg Pro Ser
1 5

<210> 85
<211> 11
<212> PRT
<213> Homo sapiens

<400> 85
Gln Val Trp Asp Ser Ser Thr Asp Arg Pro Leu
1 5 10

<210> 86
<211> 357
<212> DNA
<213> Homo sapiens

<400> 86
gaggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgtcagg cttctggata caccttcagc gattactata ttcactgggt gcgacagacc 120

cctggacaag ggtttgagtg gatgggatgg gtcaaccctg acactggtgg cacaagatac 180

gcgcagaagt ttcagggctg ggtcacaatg accagggaca tgtccaacac cacagcctac 240

atggagctgc ccaggctgag agacgacgac acggccgtat attactgtgc gagagatcta 300

actggatttg atcctttga tatctggggc cagggaaccc tggtcaccgt ctcctca 357

<210> 87
<211> 327
<212> DNA
<213> Homo sapiens

<400> 87
cagtctgtgc tgactcagcc accctcagtg tcagtggccc caggaaagac ggccacgatt 60

acctgtgggg gaaacaactt tcgaaataaa agagtacact ggtatcagca gaggccaggc 120

caggcccctg tcctggtcat ctattatgat tcagaccggc cctcagggat ccctgagcga 180

ttctctggct cccgctctgg gaacacggcc accctgacca tcagcagggt cgaggccggg 240

gatgaggccg acttttactg tcaggtgtgg gatagtagta ctgatcgtcc gctgttcggc 300

ggagggacca agctgaccgt cctaggt 327

<210> 88
<211> 741
<212> DNA
<213> Homo sapiens

<400> 88
gaagtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgtcagg cttctggata caccttcagc gattactata ttcactgggt gcgacagacc 120

cctggacaag ggtttgagtg gatgggatgg gtcaaccctg acactggtgg cacaagatac 180

gcgcagaagt ttcagggctg ggtcaccatg accagggaca tgtccaacac cacagcctac 240

atggagctgc ccaggctgag agacgacgac acggccgtat attactgtgc gagagatcta 300

actggatttg atccttttga tatctggggc cagggaaccc tggtcaccgt ctcgagtgga 360

ggcggcggtt caggcggagg tggctctggc ggtggcggaa gtgcacagtc tgtgctgact 420

cagccaccct cagtgtcagt ggccccagga aagacggcca cgattacctg tgggggaaac 480

aactttcgaa ataaaagagt acactggtat cagcagaggc caggccaggc ccctgtcctg 540

gtcatctatt atgattcaga ccggccctca gggatccctg agcgattctc tggctcccgc 600

tctgggaaca cggccaccct gaccatcagc agggtcgagg ccggggatga ggccgacttt 660

tactgtcagg tgtgggatag tagtactgat cgtccgctgt tcggcggagg gaccaagctg 720

accgtcctag gtgcggccgc a 741

<210> 89
<211> 15
<212> DNA
<213> Homo sapiens

<400> 89
gattactata ttcac 15

<210> 90
<211> 51
<212> DNA
<213> Homo sapiens

<400> 90
tgggtcaacc ctgacactgg tggcacaaga tacgcgcaga agtttcaggg c 51

<210> 91
<211> 30
<212> DNA
<213> Homo sapiens

<400> 91
gatctaactg gatttgatcc ttttgatatc 30

<210> 92
<211> 33
<212> DNA
<213> Homo sapiens

<400> 92
gggggaaaca actttcgaaa taaaagagta cac 33

<210> 93
<211> 21
<212> DNA
<213> Homo sapiens

<400> 93
tatgattcag accggccctc a 21

<210> 94
<211> 33
<212> DNA
<213> Homo sapiens

<400> 94
caggtgtggg atagtagtac tgatcgtccg ctg 33

<210> 95
<211> 121
<212> PRT
<213> Homo sapiens

<400> 95

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

<210> 96
<211> 112
<212> PRT
<213> Homo sapiens

<400> 96
Gln Ala Val Leu Thr Gln Pro Ser Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

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

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

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

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser
85 90 95

Leu Ser Gly Tyr Val Phe Gly Thr Gly Thr Gln Leu Thr Val Leu Gly
100 105 110

<210> 97
<211> 252
<212> PRT
<213> Homo sapiens

<400> 97
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Tyr Thr Gly Gly Ala Phe Tyr Ala Gln Lys Phe
50 55 60

Arg Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Asn Thr Ala Tyr
65 70 75 80

```
Met Glu Leu Ser Arg Leu Gly Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Arg Glu Pro Glu Lys Phe Asp Phe Trp Gly Gly Asp Asn Trp Gly
            100                 105                 110

Arg Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Gly Ser Ala Gln Ala Val Leu Thr Gln Pro
    130                 135                 140

Ser Ser Val Ser Gly Ala Pro Gly Gln Arg Val Thr Ile Ser Cys Thr
145                 150                 155                 160

Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Gly Val His Trp Tyr Gln
                165                 170                 175

Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr Gly Asn Ser Asn
            180                 185                 190

Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr
        195                 200                 205

Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln Ala Glu Asp Glu Ala Asp
    210                 215                 220

Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser Leu Ser Gly Tyr Val Phe Gly
225                 230                 235                 240

Thr Gly Thr Gln Leu Thr Val Leu Ser Ala Ala Ala
                245                 250
```

<210> 98
<211> 5
<212> PRT
<213> Homo sapiens

<400> 98
Asp Tyr Tyr Met His
1   5

<210> 99
<211> 17
<212> PRT
<213> Homo sapiens

<400> 99
Trp Ile Asn Pro Tyr Thr Gly Gly Ala Phe Tyr Ala Gln Lys Phe Arg
1 5 10 15

Gly

<210> 100
<211> 12
<212> PRT
<213> Homo sapiens

<400> 100
Glu Pro Glu Lys Phe Asp Phe Trp Gly Gly Asp Asn
1 5 10

<210> 101
<211> 14
<212> PRT
<213> Homo sapiens

<400> 101
Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Gly Val His
1 5 10

<210> 102
<211> 7
<212> PRT
<213> Homo sapiens

<400> 102
Gly Asn Ser Asn Arg Pro Ser
1 5

<210> 103
<211> 11
<212> PRT
<213> Homo sapiens

<400> 103
Gln Ser Tyr Asp Ser Ser Leu Ser Gly Tyr Val
1 5 10

<210> 104
<211> 363
<212> DNA
<213> Homo sapiens

<400> 104
caggtccagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc gactactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg ggtgggatgg atcaaccctt atactggtgg cgcattctat 180

gcacagaagt ttcggggcag ggtcacaatg accagggaca cgtccatcaa cacagcctac 240

atggagctga gcagactggg atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaaaattcg atttttgggg gggtgacaac tggggccggg ggacaatggt caccgtctcc 360

tca 363

<210> 105
<211> 336
<212> DNA
<213> Homo sapiens

<400> 105
caggctgtgc tgactcagcc gtcctcagtg tctggggccc cagggcagag ggtcaccatc 60

tcctgcactg ggagcagctc caacatcggg gcaggttatg gtgtacactg gtaccaacag 120

cttccaggaa cagccccaa actcctcatc tatggtaaca gcaatcggcc ctcaggggtc 180

cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

caggctgagg atgaggctga ttattactgc cagtcctatg acagcagcct gagtggttat 300

gtcttcggaa ctgggaccca gctcaccgtc ctaggt 336

<210> 106
<211> 756
<212> DNA
<213> Homo sapiens

<400> 106
caggtccagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc gactactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg ggtgggatgg atcaaccctt atactggtgg cgcattctat 180

gcacagaagt ttcggggcag ggtcaccatg accagggaca cgtccatcaa cacagcctac 240

atggagctga gcagactggg atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaaaattcg atttttgggg gggtgacaac tggggccggg ggacaatggt caccgtctcg 360

agtggaggcg gcggttcagg cggaggtggc tctggcggtg gcggaagtgc acaggctgtg 420

ctgactcagc cgtcctcagt gtctggggcc ccagggcaga gggtcaccat ctcctgcact 480

gggagcagct ccaacatcgg ggcaggttat ggtgtacact ggtaccaaca gcttccagga 540

acagccccca aactcctcat ctatggtaac agcaatcggc cctcaggggt ccctgaccga 600

ttctctggct ccaagtctgg cacctcagcc tccctggcca tcactgggct ccaggctgag 660

gatgaggctg attattactg ccagtcctat gacagcagcc tgagtggtta tgtcttcgga 720

actgggaccc agctcaccgt tttaagtgcg gccgca 756

<210> 107
<211> 15
<212> DNA
<213> Homo sapiens

<400> 107
gactactata tgcac 15

<210> 108
<211> 51
<212> DNA
<213> Homo sapiens

<400> 108
tggatcaacc cttatactgg tggcgcattc tatgcacaga agtttcgggg c 51

<210> 109
<211> 36
<212> DNA
<213> Homo sapiens

<400> 109
gaacctgaaa aattcgattt ttgggggggt gacaac 36

<210> 110
<211> 42
<212> DNA
<213> Homo sapiens

<400> 110
actgggagca gctccaacat cggggcaggt tatggtgtac ac 42

<210> 111
<211> 21
<212> DNA
<213> Homo sapiens

<400> 111
ggtaacagca atcggccctc a 21

<210> 112
<211> 33
<212> DNA
<213> Homo sapiens

<400> 112
cagtcctatg acagcagcct gagtggttat gtc 33

<210> 113
<211> 119
<212> PRT
<213> Homo sapiens

<400> 113
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Thr Pro Gly Gly
1 5 10 15

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

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

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

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

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

Ala Arg Gly Leu Trp Val Trp Asp Pro Leu Asp Tyr Trp Gly Arg Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 114
<211> 108
<212> PRT
<213> Homo sapiens

<400> 114
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Ile Gly
1 5 10 15

```
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Glu Gly Ile Tyr His 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 Ala Ser Gly Ala Pro Ser Arg Phe Ser Gly
    50                  55                  60

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

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Ser Glu Phe Ala Trp
                85                  90                  95

Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg
            100                 105
```

<210> 115
<211> 246
<212> PRT
<213> Homo sapiens

<400> 115

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Thr Pro Gly Gly
1               5                   10                  15

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

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

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

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

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

Ala Arg Gly Leu Trp Val Trp Asp Pro Leu Asp Tyr Trp Gly Arg Gly
            100                 105                 110
```

```
Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
        115                 120                 125

Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser Thr
    130                 135                 140

Leu Ser Ala Ser Ile Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser
145                 150                 155                 160

Glu Gly Ile Tyr His Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
                165                 170                 175

Ala Pro Lys Leu Leu Ile Tyr Lys Ala Ser Ser Leu Ala Ser Gly Ala
            180                 185                 190

Pro Ser Arg Phe Ser Gly Ser Gly Phe Gly Thr Asp Phe Thr Leu Thr
        195                 200                 205

Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
    210                 215                 220

Tyr Ser Glu Phe Ala Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile
225                 230                 235                 240

Lys Arg Ala Ala Ala His
                245
```

<210> 116
<211> 5
<212> PRT
<213> Homo sapiens

<400> 116
Asp Tyr Tyr Met Ser
1   5

<210> 117
<211> 17
<212> PRT
<213> Homo sapiens

<400> 117
Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
1   5   10   15

Gly

<210> 118
<211> 10
<212> PRT
<213> Homo sapiens

<400> 118
Gly Leu Trp Val Trp Asp Pro Leu Asp Tyr
1 5 10

<210> 119
<211> 11
<212> PRT
<213> Homo sapiens

<400> 119
Arg Ala Ser Glu Gly Ile Tyr His Trp Leu Ala
1 5 10

<210> 120
<211> 7
<212> PRT
<213> Homo sapiens

<400> 120
Lys Ala Ser Ser Leu Ala Ser
1 5

<210> 121
<211> 9
<212> PRT
<213> Homo sapiens

<400> 121
Gln Gln Tyr Ser Glu Phe Ala Trp Thr
1 5

<210> 122
<211> 357
<212> DNA
<213> Homo sapiens

<400> 122
gaggtgcagc tggtggagtc tgggggaggc ttggtcacgc ctggagggtc cctgagactc 60

tcctgtgcag cctctggatt caccttcagt gactactaca tgagctgggt ccgccaggct 120

ccagggaggg ggctggagtg ggtctcagct attagtggta gtggtggtag cacatactac 180

gcagactccg tgaagggccg gatcaccatc tccagagaca acgccaagaa ctcactgtat 240

ctgcaaatga gcagcctgag atctgaggac acggccgtgt attactgtgc gagagggctt 300

tgggtttggg atcctcttga ctactggggc agaggaaccc tggtcaccgt ctcctca 357

<210> 123
<211> 324
<212> DNA
<213> Homo sapiens

<400> 123
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctattggaga cagagtcacc 60

atcacctgcc gggccagtga gggtatttat cactggttgg cctggtatca gcagaagcca 120

gggaaagccc ctaaactcct gatctataag gcctctagtt tagccagtgg ggccccatca 180

aggttcagcg gcagtggatt tgggaccgat ttcactctca ccatcagcag cctgcagcct 240

gatgattttg caacttatta ctgccaacaa tacagcgagt tcgcctggac cttcggcgga 300

gggaccaagc tggagatcaa acgt 324

<210> 124
<211> 738
<212> DNA
<213> Homo sapiens

<400> 124
gaggtgcagc tggtggagtc tgggggaggc ttggtcacgc ctggagggtc cctgagactc 60

tcctgtgcag cctctggatt caccttcagt gactactaca tgagctgggt ccgccaggct 120

ccagggaggg ggctggagtg ggtctcagct attagtggta gtggtggtag cacatactac 180

gcagactccg tgaagggccg gatcaccatc tccagagaca acgccaagaa ctcactgtat 240

ctgcaaatga gcagcctgag atctgaggac acggccgtgt attactgtgc gagagggctt 300

tgggtttggg atcctcttga ctactggggc agaggaaccc tggtcaccgt ctcttcaggt 360

gggggcggtt caggcggagg tggcagcggc ggtggcggat cggacatcca gatgacccag 420

tccccttcca ccctgtctgc atctattgga gacagagtca ccatcacctg ccgggccagt 480

gagggtattt atcactggtt ggcctggtat cagcagaagc cagggaaagc ccctaaactc 540

ctgatctata aggcctctag tttagccagt ggggccccat caaggttcag cggcagtgga 600

tttgggacag atttcactct caccatcagc agcctgcagc ctgatgattt tgcaacttat 660

tactgccaac aatacagcga gttcgcctgg accttcggcg gagggaccaa gctggagatc 720

aaacgtgcgg ccgcacat 738

<210> 125
<211> 15
<212> DNA
<213> Homo sapiens

<400> 125
gactactaca tgagc 15

<210> 126
<211> 51
<212> DNA
<213> Homo sapiens

<400> 126
gctattagtg gtagtggtgg tagcacatac tacgcagact ccgtgaaggg c 51

<210> 127
<211> 30
<212> DNA
<213> Homo sapiens

<400> 127
gggctttggg tttgggatcc tcttgactac 30

<210> 128
<211> 33
<212> DNA
<213> Homo sapiens

<400> 128
cgggccagtg agggtattta tcactggttg gcc 33

<210> 129
<211> 21
<212> DNA
<213> Homo sapiens

<400> 129
aaggcctcta gtttagccag t 21

<210> 130
<211> 27
<212> DNA
<213> Homo sapiens

<400> 130
caacaataca gcgagttcgc ctggacc 27

<210> 131
<211> 119
<212> PRT
<213> Homo sapiens

<400> 131
Gln Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Val Ser Ala Tyr Thr Gly Asn Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

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

Ala Arg Asp Arg Gly Tyr Tyr Asp Ala Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 132
<211> 108
<212> PRT
<213> Homo sapiens

<400> 132
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Ile Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Glu Gly Ile Tyr His 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 Ala Ser Gly Ala Pro Ser Arg Phe Ser Gly
50 55 60

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

```
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Met Gly Glu Tyr Asn Ala
                 85                  90                  95

Thr Ile Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg
            100                 105
```

<210> 133
<211> 246
<212> PRT
<213> Homo sapiens

<400> 133

```
Gln Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1               5                  10                  15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
            20                  25                  30

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

Gly Trp Val Ser Ala Tyr Thr Gly Asn Thr Asn Tyr Ala Gln Lys Phe
    50                  55                  60

Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80

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

Ala Arg Asp Arg Gly Tyr Tyr Asp Ala Tyr Asp Ile Trp Gly Gln Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
        115                 120                 125

Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser Thr
    130                 135                 140

Leu Ser Ala Ser Ile Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser
145                 150                 155                 160

Glu Gly Ile Tyr His Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
                165                 170                 175
```

```
Ala Pro Lys Leu Leu Ile Tyr Lys Ala Ser Ser Leu Ala Ser Gly Ala
          180                 185                 190

Pro Ser Arg Phe Ser Gly Ser Gly Phe Gly Thr Asp Phe Thr Leu Thr
        195                 200                 205

Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
    210                 215                 220

Met Gly Glu Tyr Asn Ala Thr Ile Gly Gly Gly Thr Lys Leu Glu Ile
225                 230                 235                 240

Lys Arg Ala Ala Ala His
                245
```

<210> 134
<211> 5
<212> PRT
<213> Homo sapiens

<400> 134
Ser Tyr Gly Ile Ser
1   5

<210> 135
<211> 17
<212> PRT
<213> Homo sapiens

<400> 135
Trp Val Ser Ala Tyr Thr Gly Asn Thr Asn Tyr Ala Gln Lys Phe Gln
1   5   10   15

Gly

<210> 136
<211> 10
<212> PRT
<213> Homo sapiens

<400> 136
Asp Arg Gly Tyr Tyr Asp Ala Phe Asp Ile
1   5   10

<210> 137
<211> 11
<212> PRT
<213> Homo sapiens

<400> 137
Arg Ala Ser Glu Gly Ile Tyr His Trp Leu Ala
1 5 10

<210> 138
<211> 7
<212> PRT
<213> Homo sapiens

<400> 138
Lys Ala Ser Ser Leu Ala Ser
1 5

<210> 139
<211> 9
<212> PRT
<213> Homo sapiens

<400> 139
Gln Gln Met Gly Glu Tyr Asn Ala Thr
1 5

<210> 140
<211> 357
<212> DNA
<213> Homo sapiens

<400> 140
caggtgcagc tggtggagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggtta cacctttacc agttatggta tcagctgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggatgg gtcagcgctt acactggtaa cacaaactat 180

gcacagaagt tccagggcag agtcaccatg accacagaca catccacgag cacagcctac 240

atggaactga ggggcctgag atctgacgac acggccgtgt attactgtgc gagagatcgt 300

ggatactatg atgcttttga tatctggggc caaggcaccc tggtcaccgt ctcctca 357

<210> 141
<211> 324
<212> DNA
<213> Homo sapiens

<400> 141
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctattggaga cagagtcacc 60

atcacctgcc gggccagtga gggtatttat cactggttgg cctggtatca gcagaagcca 120

gggaaagccc ctaaactcct gatctataag gcctctagtt tagccagtgg ggccccatca 180

aggttcagcg gcagtggatt tgggacagat ttcactctca ccatcagcag cctgcagcct 240

gatgattttg caacttatta ctgccaacaa atgggcgagt acaacgccac catcggcgga 300

gggaccaagc tggagatcaa acgt 324

<210> 142
<211> 738
<212> DNA
<213> Homo sapiens

<400> 142
caggtgcagc tggtggagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggtta cacctttacc agttatggta tcagctgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggatgg gtcagcgctt acactggtaa cacaaactat 180

gcacagaagt tccagggcag agtcaccatg accacagaca catccacgag cacagcctac 240

atggaactga ggggcctgag atctgacgac acggccgtgt attactgtgc gagagatcgt 300

ggatactatg atgcttatga tatctggggc caaggcaccc tggtcaccgt ctcctcaggt 360

ggaggcggtt caggcggagg tggcagcggc ggtggcggat cggacatcca gatgacccag 420

tctccttcca ccctgtctgc atctattgga gacagagtca ccatcacctg ccgggccagt 480

gagggtattt atcactggtt ggcctggtat cagcagaagc cagggaaagc cctaaactc 540

ctgatctata aggcctctag tttagccagt ggggccccat caaggttcag cggcagtgga 600

tttgggacag atttcactct caccatcagc agcctgcagc ctgatgattt tgcaacttat 660

tactgccaac aaatgggcga gtacaacgcc accatcggcg gagggaccaa gctggagatc 720

aaacgtgcgg ccgcacat 738

<210> 143
<211> 15
<212> DNA
<213> Homo sapiens

<400> 143
agttatggta tcagc 15

<210> 144
<211> 51
<212> DNA
<213> Homo sapiens

<400> 144
tgggtcagcg cttacactgg taacacaaac tatgcacaga agttccaggg c 51

<210> 145
<211> 30
<212> DNA
<213> Homo sapiens

<400> 145
gatcgtggat actatgatgc ttttgatatc 30

<210> 146
<211> 33
<212> DNA
<213> Homo sapiens

<400> 146
cgggccagtg agggtattta tcactggttg gcc 33

<210> 147
<211> 21
<212> DNA
<213> Homo sapiens

<400> 147
aaggcctcta gtttagccag t 21

<210> 148
<211> 27
<212> DNA
<213> Homo sapiens

<400> 148
caacaaatgg gcgagtacaa cgccacc 27

<210> 149
<211> 119
<212> PRT
<213> Homo sapiens

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

```
Gly Trp Ile Ser Ala Tyr Thr Gly Asn Thr Asn Tyr Ala Gln Lys Phe
    50                  55                  60

Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80

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

Ala Arg Asp Arg Gly Tyr Tyr Asp Ala Phe Asp Ile Trp Gly Gln Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ser
        115
```

<210> 150
<211> 108
<212> PRT
<213> Homo sapiens

<400> 150

```
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Ile Gly
1               5                   10                  15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Glu Gly Ile Tyr His 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 Ala Ser Gly Ala Pro Ser Arg Phe Ser Gly
    50                  55                  60

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

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Met Gly Glu Trp Lys Ala
                85                  90                  95

Ala Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg
            100                 105
```

<210> 151
<211> 246
<212> PRT
<213> Homo sapiens

<400> 151

```
Gln Val Gln Leu Val Glu Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1               5                  10                  15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
            20                  25                  30

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

Gly Trp Ile Ser Ala Tyr Thr Gly Asn Thr Asn Tyr Ala Gln Lys Phe
    50                  55                  60

Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80

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

Ala Arg Asp Arg Gly Tyr Tyr Asp Ala Phe Asp Ile Trp Gly Gln Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
        115                 120                 125

Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser Thr
    130                 135                 140

Leu Ser Ala Ser Ile Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser
145                 150                 155                 160

Glu Gly Ile Tyr His Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
                165                 170                 175

Ala Pro Lys Leu Leu Ile Tyr Lys Ala Ser Ser Leu Ala Ser Gly Ala
            180                 185                 190

Pro Ser Arg Phe Ser Gly Ser Gly Phe Gly Thr Asp Phe Thr Leu Thr
        195                 200                 205

Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
    210                 215                 220
```

Met Gly Glu Trp Lys Ala Ala Phe Gly Gly Gly Thr Lys Leu Glu Ile
225 230 235 240

Lys Arg Ala Ala Ala His
245

<210> 152
<211> 5
<212> PRT
<213> Homo sapiens

<400> 152
Ser Tyr Gly Ile Ser
1 5

<210> 153
<211> 17
<212> PRT
<213> Homo sapiens

<400> 153
Trp Ile Ser Ala Tyr Thr Gly Asn Thr Asn Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 154
<211> 10
<212> PRT
<213> Homo sapiens

<400> 154
Asp Arg Gly Tyr Tyr Asp Ala Phe Asp Ile
1 5 10

<210> 155
<211> 11
<212> PRT
<213> Homo sapiens

<400> 155
Arg Ala Ser Glu Gly Ile Tyr His Trp Leu Ala
1 5 10

<210> 156
<211> 7
<212> PRT
<213> Homo sapiens

<400> 156
Lys Ala Ser Ser Leu Ala Ser
1 5

<210> 157
<211> 9
<212> PRT
<213> Homo sapiens

<400> 157
Gln Gln Met Gly Glu Trp Lys Ala Ala
1 5

<210> 158
<211> 357
<212> DNA
<213> Homo sapiens

<400> 158
caggtgcagc tggtggagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggtta caccttttacc agttatggta tcagctgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggatgg atcagcgctt acactggtaa cacaaactat 180

gcacagaagt tccagggcag agtcaccatg accacagaca catccacgag cacagcctac 240

atggaactga ggagcctgag atctgacgac acggccgtgt attactgtgc gagagatcgt 300

ggatactatg atgctttcga tatctggggc caaggcaccc tggtcaccgt ctcctca 357

<210> 159
<211> 324
<212> DNA
<213> Homo sapiens

<400> 159
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctattggaga cagagtcacc 60

atcacctgcc gggccagtga gggtatttat cactggttgg cctggtatca gcagaagcca 120

gggaaagccc ctaaactcct gatctataag gcctctagtt tagccagtgg ggccccatca 180

aggttcagcg gcagtggatt tgggacagat ttcactctca ccatcagcag cctgcagcct 240

gatgattttg caacttatta ctgccaacaa atgggggagt ggaaggcggc cttcggcgga 300

gggaccaagc tggagatcaa acgt 324

<210> 160
<211> 738
<212> DNA
<213> Homo sapiens

<400> 160
caggtgcagc tggtggagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggtta cacctttacc agttatggta tcagctgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggatgg atcagcgctt acactggtaa cacaaactat 180

gcacagaagt tccagggcag agtcaccatg accacagaca catccacgag cacagcctac 240

atggaactga ggagcctgag atctgacgac acggccgtgt attactgtgc gagagatcgt 300

ggatactatg atgctttcga tatctggggc caaggcaccc tggtcaccgt ctcctcaggt 360

gggggcggtt caggcggagg tggcagcggc ggtggcggat cggacatcca gatgacccag 420

tctccttcca ccctgtctgc atctattgga gacagagtca ccatcacctg ccgggccagt 480

gagggtattt atcactggtt ggcctggtat cagcagaagc cagggaaagc ccctaaactc 540

ctgatctata aggcctctag tttagccagt ggggccccat caaggttcag cggcagtgga 600

tttgggacag atttcactct caccatcagc agcctgcagc ctgatgattt tgcaacttat 660

tactgccaac aaatgggggga gtggaaggcg gccttcggcg gagggaccaa gctggagatc 720

aaacgtgcgg ccgcacat 738

<210> 161
<211> 15
<212> DNA
<213> Homo sapiens

<400> 161
agttatggta tcagc 15

<210> 162
<211> 51
<212> DNA
<213> Homo sapiens

<400> 162
tggatcagcg cttacactgg taacacaaac tatgcacaga agttccaggg c 51

<210> 163
<211> 30
<212> DNA
<213> Homo sapiens

<400> 163
gatcgtggat actatgatgc tttcgatatc 30

<210> 164
<211> 33
<212> DNA
<213> Homo sapiens

<400> 164
cgggccagtg agggtattta tcactggttg gcc 33

<210> 165
<211> 21
<212> DNA
<213> Homo sapiens

<400> 165
aaggcctcta gtttagccag t 21

<210> 166
<211> 27
<212> DNA
<213> Homo sapiens

<400> 166
caacaaatgg gggagtggaa ggcggcc 27

<210> 167
<211> 5
<212> PRT
<213> Homo sapiens

<400> 167
Asp Tyr Gly Met Asn
1 5

<210> 168
<211> 111
<212> PRT
<213> Homo sapiens

<400> 168
Gln Ala Val Leu Thr Gln Pro Ser Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15

Ser Ile Thr Ile Ser Cys Thr Gly Ala Ser Gly Asp Val Gly Ala Tyr
20 25 30

Asn Phe Val Ser Trp Tyr Gln Gln His Pro Gly Lys Thr Pro Lys Leu
35 40 45

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

Ser Gly Ser Lys Ser Ser Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80

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

Phe Ser Val Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu Gly
100 105 110

<210> 169
<211> 252
<212> PRT
<213> Homo sapiens

<400> 169
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
1 5 10 15

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

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

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

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

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

Ala Arg Gly Trp Tyr Ser Gly Ala Ala Trp Asn Met Gly Tyr Trp Gly
100 105 110

Arg Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly
115 120 125

Gly Gly Ser Gly Gly Gly Gly Ser Ala Gln Ala Val Leu Thr Gln Pro
130 135 140

Ser Ser Val Ser Gly Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr
145 150 155 160

```
Gly Ala Ser Gly Asp Val Gly Ala Tyr Asn Phe Val Ser Trp Tyr Gln
                165                 170                 175

Gln His Pro Gly Lys Thr Pro Lys Leu Ile Ile Tyr Asp Val Asn Lys
            180                 185                 190

Arg Pro Ser Gly Val Ser Asn Arg Phe Ser Gly Ser Lys Ser Ser Asn
        195                 200                 205

Thr Ala Ser Leu Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ser Asp
    210                 215                 220

Tyr Tyr Cys Ser Ser Tyr Thr Ser Thr Phe Ser Val Val Phe Gly Gly
225                 230                 235                 240

Gly Thr Lys Val Thr Val Leu Gly Ala Ala Ala His
                245                 250
```

<210> 170
<211> 5
<212> PRT
<213> Homo sapiens

<400> 170
Asp Tyr Gly Met Asn
1   5

<210> 171
<211> 17
<212> PRT
<213> Homo sapiens

<400> 171
Gly Val Asn Trp Asn Gly Gly Thr Arg Asp Tyr Ala Ala Ser Val Lys
1   5   10   15

Gly

<210> 172
<211> 12
<212> PRT
<213> Homo sapiens

<400> 172
Gly Trp Tyr Ser Gly Ala Ala Trp Asn Met Gly Tyr
1   5   10

<210> 173
<211> 14
<212> PRT
<213> Homo sapiens

<400> 173
Thr Gly Ala Ser Gly Asp Val Gly Ala Tyr Asn Phe Val Ser
1 5 10

<210> 174
<211> 7
<212> PRT
<213> Homo sapiens

<400> 174
Asp Val Asn Lys Arg Pro Ser
1 5

<210> 175
<211> 10
<212> PRT
<213> Homo sapiens

<400> 175
Ser Ser Tyr Thr Ser Thr Phe Ser Val Val
1 5 10

<210> 176
<211> 363
<212> DNA
<213> Homo sapiens

<400> 176
gaggtgcagc tggtggagtc cgggggaggt gtggtacggc ctgggggGTC cctgagactc 60

tcctgtgcag cctctggatt cacctttgac gattatggca tgaactgggt ccgccaagct 120

ccagggaagg ggctggagtg ggtctctggt gttaattgga atggtggtac cagagattat 180

gcagcctccg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga acagtctgag agccgaggac acggccttgt attactgtgc gagaggatgg 300

tatagtgggg ccgcgtggaa catgggctac tggggccgag gaaccctggt caccgtctcc 360

tca 363

<210> 177
<211> 333
<212> DNA
<213> Homo sapiens

<400> 177
caggctgtgc tgactcagcc gtcctccgtg tctgggtctc ctggacagtc gatcaccatc 60

tcctgcactg gagccagcgg tgacgttggt gcttataact ttgtctcctg gtaccaacaa 120

cacccaggca aaaccccccaa actcataatt tatgatgtca ataagcggcc ctcaggggtt 180

tctaatcgct tctctggctc caagtctagc aacacggcct ccctgaccat ctctgggctc 240

caggccgagg acgagtctga ttattactgc agctcatata caagcacctt ctctgtggta 300

tttggcggag ggaccaaggt caccgtccta ggt 333

<210> 178
<211> 757
<212> DNA
<213> Homo sapiens

<400> 178
cgaggtgcag ctggtggagt ccgggggagg tgtggtacgg cctgggggggt ccctgagact 60

ctcctgtgca gcctctggat tcacctttga cgattatggc atgaactggg tccgccaagc 120

tccagggaag gggctggagt gggtctctgg tgttaattgg aatggtggta ccagagatta 180

tgcagcctcc gtgaagggcc gattcaccat ctccagagac aacgccaaga actccctgta 240

tctgcaaatg aacagtctga gagccgagga cacggccttg tattactgtg cgagaggatg 300

gtatagtggg gccgcgtgga acatgggcta ctggggccga ggaaccctgg tcaccgtctc 360

gagtggaggc ggcggttcag gcggaggtgg ctctggcggt ggcggaagtg cacaggctgt 420

gctgactcag ccgtcctccg tgtctgggtc tcctggacag tcgatcacca tctcctgcac 480

tggagccagc ggtgacgttg gtgcttataa ctttgtctcc tggtaccaac aacacccagg 540

caaaaccccc aaactcataa tttatgatgt caataagcgg ccctcagggg tttctaatcg 600

cttctctggc tccaagtcta gcaacacggc ctccctgacc atctctgggc tccaggccga 660

ggacgagtct gattattact gcagctcata tacaagcacc ttctctgtgg tatttggcgg 720

agggaccaag gtcaccgtcc taggtgcggc cgcacat 757

<210> 179
<211> 15
<212> DNA
<213> Homo sapiens

<400> 179
gattatggca tgaac 15

<210> 180
<211> 51
<212> DNA
<213> Homo sapiens

<400> 180
ggtgttaatt ggaatggtgg taccagagat tatgcagcct ccgtgaaggg c 51

<210> 181
<211> 36
<212> DNA
<213> Homo sapiens

<400> 181
ggatggtata gtggggccgc gtggaacatg ggctac 36

<210> 182
<211> 42
<212> DNA
<213> Homo sapiens

<400> 182
actggagcca gcggtgacgt tggtgcttat aactttgtct cc 42

<210> 183
<211> 21
<212> DNA
<213> Homo sapiens

<400> 183
gatgtcaata agcggccctc a 21

<210> 184
<211> 30
<212> DNA
<213> Homo sapiens

<400> 184
agctcatata caagcacctt ctctgtggta 30

<210> 185
<211> 121
<212> PRT
<213> Homo sapiens

<400> 185
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
1 5 10 15

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

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

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

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

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

Ala Arg Gly Trp Tyr Ser Gly Ser Pro Trp Ser Leu Gly His Trp Gly
            100                 105                 110

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

<210> 186
<211> 111
<212> PRT
<213> Homo sapiens

<400> 186

```
Gln Ala Val Leu Thr Gln Pro Ser Ser Val Ser Gly Ser Pro Gly Gln
1               5                   10                  15

Ser Val Thr Ile Ser Cys Thr Gly Ala Ser Gly Asp Val Gly Ala Tyr
            20                  25                  30

Asn Phe Val Ser Trp Tyr Gln Gln His Pro Gly Lys Thr Pro Lys Leu
        35                  40                  45

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

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

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

Tyr Thr Thr Glu Phe Gly Gly Gly Thr Lys Val Thr Val Leu Gly
            100                 105                 110
```

<210> 187
<211> 271
<212> PRT
<213> Homo sapiens

<400> 187

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
1               5                  10                  15

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

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

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

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

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

Ala Arg Gly Trp Tyr Ser Gly Ser Pro Trp Ser Leu Gly His Trp Gly
            100                 105                 110

Arg Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Ser Gly Gly Gly Ser Gly Gly Ser Gly Gly Gly
    130                 135                 140

Ser Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Gln Ala Val Leu
145                 150                 155                 160

Thr Gln Pro Ser Ser Val Ser Gly Ser Pro Gly Gln Ser Val Thr Ile
                165                 170                 175

Ser Cys Thr Gly Ala Ser Gly Asp Val Gly Ala Tyr Asn Phe Val Ser
            180                 185                 190

Trp Tyr Gln Gln His Pro Gly Lys Thr Pro Lys Leu Ile Ile Tyr Asp
        195                 200                 205
```

```
Val Asn Lys Arg Pro Ser Gly Val Ser Asn Arg Phe Ser Gly Ser Lys
    210                 215                 220

Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Arg Leu Gln Ala Glu Asp
225                 230                 235                 240

Glu Ser Asp Tyr Tyr Cys Ser Ser Tyr Thr Ser Arg Tyr Thr Thr Glu
                245                 250                 255

Phe Gly Gly Gly Thr Lys Val Thr Val Leu Gly Ala Ala Ala His
            260                 265                 270
```

<210> 188
<211> 5
<212> PRT
<213> Homo sapiens

<400> 188
Asp Tyr Gly Met Asn
1   5

<210> 189
<211> 17
<212> PRT
<213> Homo sapiens

<400> 189
Gly Val Asn Trp Asn Gly Gly Thr Arg Asp Tyr Ala Ala Ser Val Lys
1   5   10   15

Gly

<210> 190
<211> 12
<212> PRT
<213> Homo sapiens

<400> 190
Gly Trp Tyr Ser Gly Ser Pro Trp Ser Leu Gly His
1   5   10

<210> 191
<211> 14
<212> PRT
<213> Homo sapiens

<400> 191
Thr Gly Ala Ser Gly Asp Val Gly Ala Tyr Asn Phe Val Ser
1 5 10

<210> 192
<211> 7
<212> PRT
<213> Homo sapiens

<400> 192
Asp Val Asn Lys Arg Pro Ser
1 5

<210> 193
<211> 10
<212> PRT
<213> Homo sapiens

<400> 193
Ser Ser Tyr Thr Ser Arg Tyr Thr Thr Glu
1 5 10

<210> 194
<211> 363
<212> DNA
<213> Homo sapiens

<400> 194
gaggtgcagc tggtggagtc cgggggaggt gtggtacggc ctgggggggtc cctgagactc 60

tcctgtgcag cctctggatt cacctttgac gattatggca tgaactgggt ccgccaagct 120

ccagggaagg ggctggagtg ggtctctggt gttaattgga atggtggtac cagagattat 180

gcagcctccg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga acagtctgag agccgaggac acggccttgt attactgtgc gagaggatgg 300

tatagtggga gcccgtggtc gctgggccac tggggccgag gaaccctggt caccgtctcc 360

tca 363

<210> 195
<211> 333
<212> DNA
<213> Homo sapiens

<400> 195
caggctgtgc tgactcagcc gtcctccgtg tctgggtctc ctggacagtc ggtcaccatc 60

tcctgcactg gagccagcgg tgacgttggt gcttataact ttgtctcctg gtaccaacaa 120

cacccaggca aaacccccaa actcataatt tatgatgtca ataagcggcc ctcaggggtt 180

tctaatcgct tctctggctc caagtctggc aacacggcct ccctgaccat ctctaggctc 240

caggccgagg acgagtctga ttattactgc agctcatata catcgaggta cacgaccgag 300

tttggcggag ggaccaaggt caccgtccta ggt 333

<210> 196
<211> 813
<212> DNA
<213> Homo sapiens

<400> 196
gaggtgcagc tggtggagtc cgggggaggt gtggtacggc ctgggggGTC cctgagactc 60

tcctgtgcag cctctggatt cacctttgac gattatggca tgaactgggt ccgccaagct 120

ccagggaagg ggctggagtg ggtctctggt gttaattgga atggtggtac cagagattat 180

gcagcctccg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga acagtctgag agccgaggac acggccttgt attactgtgc gagaggatgg 300

tatagtggga gcccgtggtc gctgggccac tggggccgag gaaccctggt caccgtctcg 360

agtggaggcg gcggttcagg cggaggtggc tctggcggta gcggaggtgg ctctggcggt 420

agcggaggtg gctctagcgg aggtggctct ggcggtggcg gaagtgcaca ggctgtgctg 480

actcagccgt cctccgtgtc tgggtctcct ggacagtcgg tcaccatctc ctgcactgga 540

gccagcggtg acgttggtgc ttataacttt gtctcctggt accaacaaca cccaggcaaa 600

acccccaaac tcataattta tgatgtcaat aagcggccct caggggtttc taatcgcttc 660

tctggctcca agtctggcaa cacggcctcc ctgaccatct ctaggctcca ggccgaggac 720

gagtctgatt attactgcag ctcatataca tcgaggtaca cgaccgagtt tggcggaggg 780

accaaggtca ccgtcctagg tgcggccgca cat 813

<210> 197
<211> 15
<212> DNA
<213> Homo sapiens

<400> 197
gattatggca tgaac 15

<210> 198
<211> 51
<212> DNA
<213> Homo sapiens

<400> 198
ggtgttaatt ggaatggtgg taccagagat tatgcagcct ccgtgaaggg c 51

<210> 199
<211> 36
<212> DNA
<213> Homo sapiens

<400> 199
ggatggtata gtgggagccc gtggtcgctg ggccac 36

<210> 200
<211> 42
<212> DNA
<213> Homo sapiens

<400> 200
actggagcca gcggtgacgt tggtgcttat aactttgtct cc 42

<210> 201
<211> 21
<212> DNA
<213> Homo sapiens

<400> 201
gatgtcaata agcggccctc a 21

<210> 202
<211> 30
<212> DNA
<213> Homo sapiens

<400> 202
agctcatata catcgaggta cacgaccgag 30

<210> 203
<211> 121
<212> PRT
<213> Homo sapiens

<400> 203
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
1 5 10 15

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

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

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

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

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

Ala Arg Gly Trp Tyr Ser Gly Ala Ala Trp Asn Met Gly Tyr Trp Gly
100 105 110

Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 204
<211> 111
<212> PRT
<213> Homo sapiens

<400> 204
Gln Ala Val Leu Thr Gln Pro Ser Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15

Ser Ile Thr Ile Ser Cys Thr Gly Ala Ser Gly Asp Val Gly Ala Tyr
20 25 30

Asn Phe Val Ser Trp Tyr Gln Gln His Pro Gly Lys Thr Pro Lys Leu
35 40 45

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

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80

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

Phe Ser Val Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu Gly
100 105 110

<210> 205
<211> 266
<212> PRT
<213> Homo sapiens

<400> 205

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
1               5                  10                  15

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

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

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

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

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

Ala Arg Gly Trp Tyr Ser Gly Ala Ala Trp Asn Met Gly Tyr Trp Gly
            100                 105                 110

Arg Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Gly Gly
    130                 135                 140

Ser Gly Gly Gly Gly Ser Ala Gln Ala Val Leu Thr Gln Pro Ser Ser
145                 150                 155                 160

Val Ser Gly Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr Gly Ala
                165                 170                 175

Ser Gly Asp Val Gly Ala Tyr Asn Phe Val Ser Trp Tyr Gln Gln His
            180                 185                 190

Pro Gly Lys Thr Pro Lys Leu Ile Ile Tyr Asp Val Asn Lys Arg Pro
        195                 200                 205

Ser Gly Val Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala
    210                 215                 220
```

Ser Leu Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ser Asp Tyr Tyr
225 230 235 240

Cys Ala Ser Leu Val Ser Asp Phe Ser Val Val Phe Gly Gly Gly Thr
245 250 255

Lys Val Thr Val Leu Gly Ala Ala Ala His
260 265

<210> 206
<211> 5
<212> PRT
<213> Homo sapiens

<400> 206
Asp Tyr Gly Met Asn
1 5

<210> 207
<211> 17
<212> PRT
<213> Homo sapiens

<400> 207
Gly Val Asn Trp Asn Gly Gly Thr Arg Asp Tyr Ala Ala Ser Val Lys
1 5 10 15

Gly

<210> 208
<211> 12
<212> PRT
<213> Homo sapiens

<400> 208
Gly Trp Tyr Ser Gly Ala Ala Trp Asn Met Gly Tyr
1 5 10

<210> 209
<211> 14
<212> PRT
<213> Homo sapiens

<400> 209
Thr Gly Ala Ser Gly Asp Val Gly Ala Tyr Asn Phe Val Ser
1 5 10

<210> 210
<211> 7
<212> PRT
<213> Homo sapiens

<400> 210
Asp Val Asn Lys Arg Pro Ser
1 5

<210> 211
<211> 10
<212> PRT
<213> Homo sapiens

<400> 211
Ala Ser Leu Val Ser Asp Phe Ser Val Val
1 5 10

<210> 212
<211> 363
<212> DNA
<213> Homo sapiens

<400> 212
gaggtgcagc tggtggagtc cgggggaggt gtggtacggc ctgggggGTC cctgagactc 60

tcctgtgcag cctctggatt cacctttgac gattatggca tgaactgggt ccgccaagct 120

ccagggaagg ggctggagtg ggtctctggt gttaattgga atggtggtac cagagattat 180

gcagcctccg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga acagtctgag agccgaggac acggccttgt attactgtgc gagaggatgg 300

tatagtgggg ccgcgtggaa catgggctac tggggccgag gaaccctggt caccgtctcc 360

tca 363

<210> 213
<211> 333
<212> DNA
<213> Homo sapiens

<400> 213
caggctgtgc tgactcagcc gtcctccgtg tctgggtccc ctggacagtc gatcaccatc 60

tcctgcactg gagccagcgg tgacgttggt gcttataact ttgtctcctg gtaccaacaa 120

cacccaggca aaaccccaa actcataatt tatgatgtca ataagcggcc ctcaggggtt 180

tctaatcgct tctctggctc caagtctggc aacacggcct ccctgaccat ctctgggctc 240

caggccgagg acgagtctga ttattactgc gcctccctcg tctccgactt ctctgtggta 300

tttggcggag gaccaaggt caccgtccta ggt 333

<210> 214
<211> 798
<212> DNA
<213> Homo sapiens

<400> 214
gaggtgcagc tggtggagtc cgggggaggt gtggtacggc ctgggggGTC cctgagactc 60

tcctgtgcag cctctggatt cacctttgac gattatggca tgaactgggt ccgccaagct 120

ccagggaagg ggctggagtg ggtctctggt gttaattgga atggtggtac cagagattat 180

gcagcctccg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga acagtctgag agccgaggac acggccttgt attactgtgc gagaggatgg 300

tatagtgggg ccgcgtggaa catgggctac tggggccgag gaaccctggt caccgtctcg 360

agtggaggcg gcggttcagg cggaggtggc tctggtggta gcggaggtgg ctctggcggt 420

ggcggaggtg gctctggcgg tggcggaagt gcacaggctg tgctgactca gccgtcctcc 480

gtgtctgggt cccctggaca gtcgatcacc atctcctgca ctggagccag cggtgacgtt 540

ggtgcttata actttgtctc ctggtaccaa caacacccag gcaaaacccc caaactcata 600

atttatgatg tcaataagcg gccctcaggg gtttctaatc gcttctctgg ctccaagtct 660

ggcaacacgg cctccctgac catctctggg ctccaggccg aggacgagtc tgattattac 720

tgcgcctccc tcgtctccga cttctctgtg gtatttggcg gagggaccaa ggtcaccgtc 780

ctaggtgcgg ccgcacat 798

<210> 215
<211> 15
<212> DNA
<213> Homo sapiens

<400> 215
gattatggca tgaac 15

<210> 216
<211> 51
<212> DNA
<213> Homo sapiens

<400> 216
ggtgttaatt ggaatggtgg taccagagat tatgcagcct ccgtgaaggg c 51

<210> 217
<211> 36
<212> DNA
<213> Homo sapiens

<400> 217
ggatggtata gtggggccgc gtggaacatg ggctac 36

<210> 218
<211> 42
<212> DNA
<213> Homo sapiens

<400> 218
actggagcca gcggtgacgt tggtgcttat aactttgtct cc 42

<210> 219
<211> 21
<212> DNA
<213> Homo sapiens

<400> 219
gatgtcaata agcggccctc a 21

<210> 220
<211> 30
<212> DNA
<213> Homo sapiens

<400> 220
gcctccctcg tctccgactt ctctgtggta 30

<210> 221
<211> 119
<212> PRT
<213> Homo sapiens

<400> 221

Glu	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1				5					10					15	

Ser	Val	Lys	Val	Ser	Cys	Gln	Ala	Ser	Gly	Tyr	Thr	Phe	Ser	Asp	Tyr
			20					25					30		

Tyr	Ile	His	Trp	Val	Arg	Gln	Thr	Pro	Gly	Gln	Gly	Phe	Glu	Trp	Met
		35					40					45			

Gly	Trp	Val	Asn	Pro	Asp	Thr	Gly	Gly	Thr	Arg	Tyr	Ala	Gln	Lys	Phe
	50					55					60				

```
Gln Gly Trp Val Thr Met Thr Arg Asp Met Ser Asn Thr Thr Ala Tyr
65                  70                  75                  80

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

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

Thr Leu Val Thr Val Ser Ser
        115
```

<210> 222
<211> 109
<212> PRT
<213> Homo sapiens

<400> 222

```
Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Val Ala Pro Gly Lys
1               5                   10                  15

Thr Ala Thr Ile Thr Cys Gly Gly Asn Asn Phe Arg Asn Lys Arg Val
            20                  25                  30

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

Tyr Asp Ser Asp Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
    50                  55                  60

Arg Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Arg Val Glu Ala Gly
65                  70                  75                  80

Asp Glu Ala Asp Phe Tyr Cys Gln Val Trp Asp Leu Phe Asn Asp Asn
                85                  90                  95

Gly Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100                 105
```

<210> 223
<211> 248
<212> PRT
<213> Homo sapiens

<400> 223

```
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1               5                   10                  15
```

```
Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Thr Phe Ser Asp Tyr
            20                  25                  30

Tyr Ile His Trp Val Arg Gln Thr Pro Gly Gln Gly Phe Glu Trp Met
        35                  40                  45

Gly Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe
    50                  55                  60

Gln Gly Trp Val Thr Met Thr Arg Asp Met Ser Asn Thr Thr Ala Tyr
65                  70                  75                  80

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

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

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Ser Ser Gly Gly Gly Gly
        115                 120                 125

Ser Gly Gly Gly Gly Ser Ala Gln Ser Val Leu Thr Gln Pro Pro Ser
    130                 135                 140

Val Ser Val Ala Pro Gly Lys Thr Ala Thr Ile Thr Cys Gly Gly Asn
145                 150                 155                 160

Asn Phe Arg Asn Lys Arg Val His Trp Tyr Gln Gln Arg Pro Gly Gln
                165                 170                 175

Ala Pro Val Leu Val Ile Tyr Tyr Asp Ser Asp Arg Pro Ser Gly Ile
            180                 185                 190

Pro Glu Arg Phe Ser Gly Ser Arg Ser Gly Asn Thr Ala Thr Leu Thr
        195                 200                 205

Ile Ser Arg Val Glu Ala Gly Asp Glu Ala Asp Phe Tyr Cys Gln Val
    210                 215                 220

Trp Asp Leu Phe Asn Asp Asn Gly Val Phe Gly Gly Gly Thr Lys Leu
225                 230                 235                 240
```

Thr Val Leu Gly Ala Ala Ala His
245

<210> 224
<211> 5
<212> PRT
<213> Homo sapiens

<400> 224
Asp Tyr Tyr Ile His
1 5

<210> 225
<211> 17
<212> PRT
<213> Homo sapiens

<400> 225
Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 226
<211> 10
<212> PRT
<213> Homo sapiens

<400> 226
Asp Leu Thr Gly Phe Asp Pro Phe Asp Ile
1 5 10

<210> 227
<211> 11
<212> PRT
<213> Homo sapiens

<400> 227
Gly Gly Asn Asn Phe Arg Asn Lys Arg Val His
1 5 10

<210> 228
<211> 7
<212> PRT
<213> Homo sapiens

<400> 228
Tyr Asp Ser Asp Arg Pro Ser
1 5

<210> 229
<211> 11
<212> PRT
<213> Homo sapiens

<400> 229
Gln Val Trp Asp Leu Phe Asn Asp Asn Gly Val
1 5 10

<210> 230
<211> 357
<212> DNA
<213> Homo sapiens

<400> 230
gaggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgtcagg cttctggata caccttcagc gattactata ttcactgggt gcgacagacc 120

cctggacaag ggtttgagtg gatgggatgg gtcaaccctg acactggtgg cacaagatac 180

gcgcagaagt ttcagggctg ggtcacaatg accagggaca tgtccaacac cacagcctac 240

atggagctgc ccaggctgag agacgacgac acggccgtat attactgtgc gagagatcta 300

actggatttg atccttttga tatctggggc cagggaaccc tggtcaccgt ctcctca 357

<210> 231
<211> 327
<212> DNA
<213> Homo sapiens

<400> 231
cagtctgtgc tgactcagcc accctcagtg tcagtggccc caggaaagac ggccacgatt 60

acctgtgggg gaaacaactt tcgaaataaa agagtacact ggtatcagca gaggccaggc 120

caggcccctg tcctggtcat ctattatgac tcagaccggc cctcagggat ccctgagcga 180

ttctctggct cccgctctgg gaacacggcc accctgacca tcagcagggt cgaggccggg 240

gatgaggccg acttttactg tcaggtgtgg gatctcttca acgacaacgg cgtgttcggc 300

ggagggacca agctgaccgt cctaggt 327

<210> 232
<211> 744
<212> DNA
<213> Homo sapiens

<400> 232
gaagtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgtcagg cttctggata caccttcagc gattactata ttcactgggt gcgacagacc 120

cctggacaag ggtttgagtg gatgggatgg gtcaaccctg acactggtgg cacaagatac 180

gcgcagaagt ttcagggctg ggtcacaatg accagggaca tgtccaacac cacagcctac 240

atggagctgc ccaggctgag agacgacgac acggccgtat attactgtgc gagagatcta 300

actggatttg atccttttga tatctggggc cagggaaccc tggtcaccgt ctcgagtgga 360

ggcggcagtt caggtggagg tggctctggc ggtggcggaa gtgcacagtc tgtgctgact 420

cagccaccct cagtgtcagt ggccccagga aagacggcca cgattacctg tgggggaaac 480

aactttcgaa ataaaagagt acactggtat cagcagaggc caggccaggc ccctgtcctg 540

gtcatctatt atgattcaga ccggccctca gggatccctg agcgattctc tggctcccgc 600

tctgggaaca cggccaccct gaccatcagc agggtcgagg ccggggatga ggccgacttt 660

tactgtcagg tgtgggatct cttcaacgac aacggcgtgt tcggcggagg gaccaagctg 720

accgtcctag gtgcggccgc acat 744

<210> 233
<211> 15
<212> DNA
<213> Homo sapiens

<400> 233
gattactata ttcac 15

<210> 234
<211> 51
<212> DNA
<213> Homo sapiens

<400> 234
tgggtcaacc ctgacactgg tggcacaaga tacgcgcaga agtttcaggg c 51

<210> 235
<211> 30
<212> DNA
<213> Homo sapiens

<400> 235
gatctaactg gatttgatcc ttttgatatc 30

<210> 236
<211> 33
<212> DNA
<213> Homo sapiens

<400> 236
gggggaaaca actttcgaaa taaaagagta cac 33

<210> 237
<211> 21
<212> DNA
<213> Homo sapiens

<400> 237
tatgactcag accggccctc a 21

<210> 238
<211> 33
<212> DNA
<213> Homo sapiens

<400> 238
caggtgtggg atctcttcaa cgacaacggc gtg 33

<210> 239
<211> 119
<212> PRT
<213> Homo sapiens

<400> 239

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

<210> 240
<211> 109
<212> PRT
<213> Homo sapiens

<400> 240
Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Val Ala Pro Gly Lys
1 5 10 15

Thr Ala Thr Ile Thr Cys Gly Gly Asn Asn Phe Arg Asn Lys Arg Val
20 25 30

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

Tyr Asp Ser Asp Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

Arg Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Arg Val Glu Ala Gly
65 70 75 80

Asp Glu Ala Asp Phe Tyr Cys Gln Val Trp Asp Phe Leu Thr Asp Ser
85 90 95

Gly Ser Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105

<210> 241
<211> 248
<212> PRT
<213> Homo sapiens

<400> 241
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Thr Phe Ser Asp Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Thr Pro Gly Gln Gly Phe Glu Trp Met
35 40 45

Gly Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Trp Val Thr Met Thr Arg Asp Met Ser Asn Thr Thr Ala Tyr
65 70 75 80

```
Met Glu Leu Pro Arg Leu Arg Asp Asp Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

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

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
        115                 120                 125

Ser Gly Gly Gly Gly Ser Ala Gln Ser Val Leu Thr Gln Pro Pro Ser
    130                 135                 140

Val Ser Val Ala Pro Gly Lys Thr Ala Thr Ile Thr Cys Gly Gly Asn
145                 150                 155                 160

Asn Phe Arg Asn Lys Arg Val His Trp Tyr Gln Gln Arg Pro Gly Gln
                165                 170                 175

Ala Pro Val Leu Val Ile Tyr Tyr Asp Ser Asp Arg Pro Ser Gly Ile
            180                 185                 190

Pro Glu Arg Phe Ser Gly Ser Arg Ser Gly Asn Thr Ala Thr Leu Thr
        195                 200                 205

Ile Ser Arg Val Glu Ala Gly Asp Glu Ala Asp Phe Tyr Cys Gln Val
    210                 215                 220

Trp Asp Phe Leu Thr Asp Ser Gly Ser Phe Gly Gly Gly Thr Lys Leu
225                 230                 235                 240

Thr Val Leu Gly Ala Ala Ala His
                245
```

<210> 242
<211> 5
<212> PRT
<213> Homo sapiens

<400> 242

```
Asp Tyr Tyr Ile His
1               5
```

<210> 243
<211> 17
<212> PRT
<213> Homo sapiens

<400> 243
Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 244
<211> 10
<212> PRT
<213> Homo sapiens

<400> 244
Asp Leu Thr Gly Phe Asp Pro Phe Asp Ile
1 5 10

<210> 245
<211> 11
<212> PRT
<213> Homo sapiens

<400> 245
Gly Gly Asn Asn Phe Arg Asn Lys Arg Val His
1 5 10

<210> 246
<211> 7
<212> PRT
<213> Homo sapiens

<400> 246
Tyr Asp Ser Asp Arg Pro Ser
1 5

<210> 247
<211> 11
<212> PRT
<213> Homo sapiens

<400> 247
Gln Val Trp Asp Phe Leu Thr Asp Ser Gly Ser
1 5 10

<210> 248
<211> 357
<212> DNA
<213> Homo sapiens

<400> 248
gaggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgtcagg cttctggata caccttcagc gattactata ttcactgggt gcgacagacc 120

cctggacaag ggtttgagtg gatgggatgg gtcaaccctg acactggtgg cacaagatac 180

gcgcagaagt ttcagggctg ggtcacaatg accagggaca tgtccaacac cacagcctac 240

atggagctgc ccaggctgag agacgacgac acggccgtat attactgtgc gagagatcta 300

actggatttg atccttttga tatctggggc cagggaaccc tggtcaccgt ctcctca 357

<210> 249
<211> 327
<212> DNA
<213> Homo sapiens

<400> 249
cagtctgtgc tgactcagcc accctcagtg tcagtggccc caggaaagac ggccacaatt 60

acctgtgggg gaaacaactt tcgaaataaa agagtacact ggtatcagca gaggccaggc 120

caggcgcctg tcctggtcat ctattatgat tcagaccggc cctcagggat ccctgagcga 180

ttctctggct cccgctctgg gaacacggcc accctgacca tcagcagggt cgaggccggg 240

gatgaggccg acttttactg tcaggtgtgg gatttcctca ccgactcggg gtcgttcggc 300

ggagggacca agctgaccgt cctaggt 327

<210> 250
<211> 744
<212> DNA
<213> Homo sapiens

<400> 250
gaagtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgtcagg cttctggata caccttcagc gattactata ttcactgggt gcgacagacc 120

cctggacaag ggtttgagtg gatgggatgg gtcaaccctg acactggtgg cacaagatac 180

gcgcagaagt ttcagggctg ggtcacaatg accagggaca tgtccaacac cacagcctac 240

atggagctgc ccaggctgag agacgacgac acggccgtat attactgtgc gagagatcta 300

actggatttg atccttttga tatctggggc cagggaaccc tggtcaccgt ctcgagtgga 360

ggcggcggtt caggcggagg tggctctggc ggtggcggaa gtgcacagtc tgtgctgact 420

cagccaccct cagtgtcagt ggccccagga aagacggcca caattacctg tgggggaaac 480

aactttcgaa ataaaagagt acactggtat cagcagaggc caggccaggc gcctgtcctg 540

gtcatctatt atgattcaga ccggccctca gggatccctg agcgattctc tggctcccgc 600

tctgggaaca cggccaccct gaccatcagc agggtcgagg ccggggatga ggccgacttt 660

tactgtcagg tgtgggattt cctcaccgac tcggggtcgt tcggcggagg gaccaagctg 720

accgtcctag gtgcggccgc acat 744

<210> 251
<211> 15
<212> DNA
<213> Homo sapiens

<400> 251
gattactata ttcac 15

<210> 252
<211> 51
<212> DNA
<213> Homo sapiens

<400> 252
tgggtcaacc ctgacactgg tggcacaaga tacgcgcaga agtttcaggg c 51

<210> 253
<211> 30
<212> DNA
<213> Homo sapiens

<400> 253
gatctaactg gatttgatcc ttttgatatc 30

<210> 254
<211> 33
<212> DNA
<213> Homo sapiens

<400> 254
gggggaaaca actttcgaaa taaaagagta cac 33

<210> 255
<211> 21
<212> DNA
<213> Homo sapiens

<400> 255
tatgattcag accggccctc a 21

<210> 256
<211> 33
<212> DNA
<213> Homo sapiens

<400> 256
caggtgtggg atttcctcac cgactcgggg tcg 33

<210> 257
<211> 119
<212> PRT
<213> Homo sapiens

<400> 257
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Thr Phe Ser Asp Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Thr Pro Gly Gln Gly Phe Glu Trp Met
35 40 45

Gly Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Trp Val Thr Met Thr Arg Asp Met Ser Asn Thr Thr Ala Tyr
65 70 75 80

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

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

Thr Leu Val Thr Val Ser Ser
115

<210> 258
<211> 108
<212> PRT
<213> Homo sapiens

<400> 258
Gln Ser Val Leu Thr Gln Pro Pro Ser Met Ser Val Ala Pro Gly Lys
1 5 10 15

Thr Ala Thr Ile Thr Cys Gly Gly Asn Asn Phe Arg Asn Lys Arg Val
20 25 30

```
His Trp Tyr Gln Gln Arg Pro Gly Gln Ala Pro Val Leu Val Ile Tyr
        35                  40                  45

Tyr Asp Ser Asp Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
    50                  55                  60

Arg Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Arg Val Glu Ala Gly
65                  70                  75                  80

Asp Glu Ala Asp Phe Tyr Cys Gln Val Trp Asp Phe Leu Ala Asp Glu
                85                  90                  95

Ala Met Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
            100                 105
```

<210> 259
<211> 262
<212> PRT
<213> Homo sapiens

<400> 259

```
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1               5                   10                  15

Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Thr Phe Ser Asp Tyr
            20                  25                  30

Tyr Ile His Trp Val Arg Gln Thr Pro Gly Gln Gly Phe Glu Trp Met
        35                  40                  45

Gly Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe
    50                  55                  60

Gln Gly Trp Val Thr Met Thr Arg Asp Met Ser Asn Thr Thr Ala Tyr
65                  70                  75                  80

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

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

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
        115                 120                 125
```

```
Ser Gly Gly Gly Gly Gly Gly Ser Gly Gly Gly Gly Gly Gly Ser Gly
    130                 135                 140

Gly Gly Gly Ser Ala Gln Ser Val Leu Thr Gln Pro Pro Ser Met Ser
145                 150                 155                 160

Val Ala Pro Gly Lys Thr Ala Thr Ile Thr Cys Gly Gly Asn Asn Phe
                165                 170                 175

Arg Asn Lys Arg Val His Trp Tyr Gln Gln Arg Pro Gly Gln Ala Pro
            180                 185                 190

Val Leu Val Ile Tyr Tyr Asp Ser Asp Arg Pro Ser Gly Ile Pro Glu
        195                 200                 205

Arg Phe Ser Gly Ser Arg Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser
    210                 215                 220

Arg Val Glu Ala Gly Asp Glu Ala Asp Phe Tyr Cys Gln Val Trp Asp
225                 230                 235                 240

Phe Leu Ala Asp Glu Ala Met Phe Gly Gly Gly Thr Lys Leu Thr Val
                245                 250                 255

Leu Gly Ala Ala Ala His
            260
```

<210> 260
<211> 5
<212> PRT
<213> Homo sapiens

<400> 260
Asp Tyr Tyr Ile His
1   5

<210> 261
<211> 17
<212> PRT
<213> Homo sapiens

<400> 261
Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe Gln
1   5   10   15

Gly

<210> 262
<211> 10
<212> PRT
<213> Homo sapiens

<400> 262
Asp Leu Thr Gly Tyr Asp Tyr Tyr Asp Arg
1 5 10

<210> 263
<211> 11
<212> PRT
<213> Homo sapiens

<400> 263
Gly Gly Asn Asn Phe Arg Asn Lys Arg Val His
1 5 10

<210> 264
<211> 7
<212> PRT
<213> Homo sapiens

<400> 264
Tyr Asp Ser Asp Arg Pro Ser
1 5

<210> 265
<211> 11
<212> PRT
<213> Homo sapiens

<400> 265
Gln Val Trp Asp Phe Leu Ala Asp Glu Ala Met
1 5 10

<210> 266
<211> 357
<212> DNA
<213> Homo sapiens

<400> 266
gaggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgtcagg cttctggata caccttcagc gattactata ttcactgggt gcgacagacc 120

cctggacaag ggtttgagtg gatgggatgg gtcaaccctg acactggtgg cacaagatac 180

gcgcagaagt ttcagggctg ggtcacaatg accagggaca tgtccaacac cacagcctac 240

atggagctgc ccaggctgag agacgacgac acggccgtat attactgtgc gagagatcta 300

actggatacg actactacga ccggtggggc cagggaaccc tggtcaccgt ctcctca 357

<210> 267
<211> 327
<212> DNA
<213> Homo sapiens

<400> 267
cagtctgtgc tgactcagcc gccctcaatg tcagtggccc caggaaagac ggccacgatt 60

acctgtgggg gaaacaactt tcgaaataaa agagtacact ggtatcagca gaggccaggc 120

caggcccctg tcctggtcat ctattatgat tcagaccggc cctcagggat ccctgagcga 180

ttctctggct cccgctctgg gaacacggcc accctgacca tcagcagggt cgaggccggg 240

gatgaggccg actttttactg tcaggtgtgg gatttcctcg ccgacgaggc gatgttcggc 300

ggagggacca agctgaccgt cctaggt 327

<210> 268
<211> 786
<212> DNA
<213> Homo sapiens

<400> 268
gaagtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgtcagg cttctggata caccttcagc gattactata ttcactgggt gcgacagacc 120

cctggacaag ggtttgagtg gatgggatgg gtcaaccctg acactggtgg cacaagatac 180

gcgcagaagt ttcagggctg ggtcacaatg accagggaca tgtccaacac cacagcctac 240

atggagctgc ccaggctgag agacgacgac acggccgtat attactgtgc gagagatcta 300

actggatacg actactacga ccggtggggc cagggaaccc tggtcaccgt ctcgagtgga 360

ggcggcggtt caggcggagg tggctctggc ggtggtggag gtggctctgg cggtggcgga 420

ggtggctctg gcggtggcgg aagtgcacag tctgtgctga ctcagccgcc ctcaatgtca 480

gtggccccag gaaagacggc cacgattacc tgtgggggaa acaactttcg aaataaaaga 540

gtacactggt atcagcagag gccaggccag gcccctgtcc tggtcatcta ttatgattca 600

gaccggccct cagggatccc tgagcgattc tctggctccc gctctgggaa cacggccacc 660

ctgaccatca gcagggtcga ggccggggat gaggccgact tttactgtca ggtgtgggat 720

ttcctcgccg acgaggcgat gttcggcgga gggaccaagc tgaccgtcct aggtgcggcc 780

gcacat 786

<210> 269
<211> 15
<212> DNA
<213> Homo sapiens

<400> 269
gattactata ttcac 15

<210> 270
<211> 51
<212> DNA
<213> Homo sapiens

<400> 270
tgggtcaacc ctgacactgg tggcacaaga tacgcgcaga agtttcaggg c 51

<210> 271
<211> 30
<212> DNA
<213> Homo sapiens

<400> 271
gatctaactg gatacgacta ctacgaccgg 30

<210> 272
<211> 33
<212> DNA
<213> Homo sapiens

<400> 272
gggggaaaca actttcgaaa taaaagagta cac 33

<210> 273
<211> 21
<212> DNA
<213> Homo sapiens

<400> 273
tatgattcag accggccctc a 21

<210> 274
<211> 33
<212> DNA
<213> Homo sapiens

<400> 274
caggtgtggg atttcctcgc cgacgaggcg atg 33

<210> 275
<211> 119
<212> PRT
<213> Homo sapiens

<400> 275
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Thr Phe Ser Asp Tyr
20 25 30

Tyr Ile His Trp Val Arg Gln Thr Pro Gly Gln Gly Phe Glu Trp Met
35 40 45

Gly Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Trp Val Thr Met Thr Arg Asp Met Ser Asn Thr Thr Ala Tyr
65 70 75 80

Met Glu Leu Pro Gly Leu Arg Asp Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

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

Thr Leu Val Thr Val Ser Ser
115

<210> 276
<211> 109
<212> PRT
<213> Homo sapiens

<400> 276
Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Val Ala Pro Gly Lys
1 5 10 15

Thr Ala Thr Ile Thr Cys Gly Gly Asn Asn Phe Arg Asn Lys Arg Val
20 25 30

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

Tyr Asp Ser Asp Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

Arg Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Arg Val Glu Ala Gly
65 70 75 80

```
Asp Glu Ala Asp Phe Tyr Cys Ser Thr Phe Asp Pro Phe Thr Asp Arg
                 85                  90                  95

Pro Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100                 105
```

<210> 277
<211> 248
<212> PRT
<213> Homo sapiens

<400> 277

```
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1               5                  10                  15

Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Thr Phe Ser Asp Tyr
            20                  25                  30

Tyr Ile His Trp Val Arg Gln Thr Pro Gly Gln Gly Phe Glu Trp Met
        35                  40                  45

Gly Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe
    50                  55                  60

Gln Gly Trp Val Thr Met Thr Arg Asp Met Ser Asn Thr Thr Ala Tyr
65                  70                  75                  80

Met Glu Leu Pro Gly Leu Arg Asp Asp Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

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

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
        115                 120                 125

Ser Gly Gly Gly Gly Ser Ala Gln Ser Val Leu Thr Gln Pro Pro Ser
    130                 135                 140

Val Ser Val Ala Pro Gly Lys Thr Ala Thr Ile Thr Cys Gly Gly Asn
145                 150                 155                 160

Asn Phe Arg Asn Lys Arg Val His Trp Tyr Gln Gln Arg Pro Gly Gln
                165                 170                 175
```

```
Ala Pro Val Leu Val Ile Tyr Tyr Asp Ser Asp Arg Pro Ser Gly Ile
            180                 185                 190

Pro Glu Arg Phe Ser Gly Ser Arg Ser Gly Asn Thr Ala Thr Leu Thr
        195                 200                 205

Ile Ser Arg Val Glu Ala Gly Asp Glu Ala Asp Phe Tyr Cys Ser Thr
    210                 215                 220

Phe Asp Pro Phe Thr Asp Arg Pro Leu Phe Gly Gly Gly Thr Lys Leu
225                 230                 235                 240

Thr Val Leu Gly Ala Ala Ala His
                245
```

<210> 278
<211> 5
<212> PRT
<213> Homo sapiens

<400> 278
Asp Tyr Tyr Ile His
1   5

<210> 279
<211> 17
<212> PRT
<213> Homo sapiens

<400> 279
Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe Gln
1   5   10   15

Gly

<210> 280
<211> 10
<212> PRT
<213> Homo sapiens

<400> 280
Asp Leu Thr Gly Tyr Asp Gln Tyr Thr Ala
1   5   10

<210> 281
<211> 11
<212> PRT
<213> Homo sapiens

<400> 281
Gly Gly Asn Asn Phe Arg Asn Lys Arg Val His
1 5 10

<210> 282
<211> 7
<212> PRT
<213> Homo sapiens

<400> 282
Tyr Asp Ser Asp Arg Pro Ser
1 5

<210> 283
<211> 11
<212> PRT
<213> Homo sapiens

<400> 283
Ser Thr Phe Asp Pro Phe Thr Asp Arg Pro Leu
1 5 10

<210> 284
<211> 357
<212> DNA
<213> Homo sapiens

<400> 284
gaggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgtcagg cttctggata caccttcagc gattactata ttcactgggt gcgacagacc 120

ccaggacaag ggtttgagtg gatgggatgg gtcaaccctg acactggtgg cacgagatac 180

gcgcagaagt ttcagggctg ggtcacaatg accagggaca tgtccaacac cacagcctac 240

atggagctgc ccgggctgag agacgacgac acggccgtat attactgtgc gagagatcta 300

actgggtacg accagtacac ggcctggggc cagggaaccc tggtcaccgt ctcctca 357

<210> 285
<211> 327
<212> DNA
<213> Homo sapiens

<400> 285
cagtctgtgc tgactcagcc accctcagtg tcagtggccc caggaaagac ggccacgatt 60

acctgtgggg gaaacaactt tcgaaataaa agagtacact ggtatcagca gaggccaggc 120

caggcccctg tcctggtcat ctattatgat tcagaccggc cctcagggat ccctgagcga 180

ttctctggct cccgctctgg gaacacggcc accctgacca tcagcagggt cgaggccggg 240

gatgaggccg acttttactg tagcaccttc gacccccttca ctgatcgtcc gctgttcggc 300

ggagggacca agctgaccgt cctaggt 327

<210> 286
<211> 744
<212> DNA
<213> Homo sapiens

<400> 286
gaagtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgtcagg cttctggata caccttcagc gattactata ttcactgggt gcgacagacc 120

ccaggacaag ggtttgagtg gatgggatgg gtcaaccctg acactggtgg cacgagatac 180

gcgcagaagt ttcagggctg ggtcacaatg accagggaca tgtccaacac cacagcctac 240

atggagctgc ccgggctgag agacgacgac acggccgtat attactgtgc gagagatcta 300

actgggtacg accagtacac ggcctggggc cagggaaccc tggtcaccgt ctcgagtgga 360

ggcggcggtt caggcggagg tggctctggc ggtggcggaa gtgcacagtc tgtgctgact 420

cagccaccct cagtgtcagt ggccccagga aagacggcca cgattacctg tgggggaaac 480

aactttcgaa ataaaagagt acactggtat cagcagaggc caggccaggc ccctgtcctg 540

gtcatctatt atgattcaga ccggccctca gggatccctg agcgattctc tggctcccgc 600

tctgggaaca cggccaccct gaccatcagc agggtcgagg ccggggatga ggccgacttt 660

tactgtagca ccttcgaccc cttcactgat cgtccgctgt tcggcggagg gaccaagctg 720

accgtcctag gtgcggccgc acat 744

<210> 287
<211> 15
<212> DNA
<213> Homo sapiens

<400> 287
gattactata ttcac 15

<210> 288
<211> 51
<212> DNA
<213> Homo sapiens

<400> 288
tgggtcaacc ctgacactgg tggcacgaga tacgcgcaga agtttcaggg c 51

<210> 289
<211> 30
<212> DNA
<213> Homo sapiens

<400> 289
gatctaactg ggtacgacca gtacacggcc 30

<210> 290
<211> 33
<212> DNA
<213> Homo sapiens

<400> 290
gggggaaaca actttcgaaa taaaagagta cac 33

<210> 291
<211> 21
<212> DNA
<213> Homo sapiens

<400> 291
tatgattcag accggccctc a 21

<210> 292
<211> 33
<212> DNA
<213> Homo sapiens

<400> 292
agcaccttcg acccccttcac tgatcgtccg ctg 33

<210> 293
<211> 120
<212> PRT
<213> Homo sapiens

<400> 293

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Lys	Lys	Pro	Gly	Ala	Ser
1				5					10					15	

Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Asp	Tyr	Tyr
			20					25					30		

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

Trp Ile Asn Pro Tyr Thr Gly Gly Ala Phe Tyr Ala Gln Lys Phe Arg
50 55 60

Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Asn Thr Ala Tyr Met
65 70 75 80

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

Arg Glu Pro Glu Arg Phe Gly Asp Ser Thr Gly Gln Val Trp Gly Arg
100 105 110

Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 294
<211> 113
<212> PRT
<213> Homo sapiens

<400> 294
Gln Ala Val Leu Thr Gln Pro Ser Ser Val Ser Gly Ala Pro Arg Gln
1 5 10 15

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

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

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

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Tyr His Trp Asp Lys Glu
85 90 95

Gln Ser Gly Tyr Val Phe Gly Thr Gly Thr Gln Leu Thr Val Leu Ser
100 105 110

Ala

<210> 295
<211> 249
<212> PRT
<213> Homo sapiens

<400> 295

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Lys Lys Pro Gly Ala Ser
1               5                  10                  15

Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr Tyr
            20                  25                  30

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

Trp Ile Asn Pro Tyr Thr Gly Gly Ala Phe Tyr Ala Gln Lys Phe Arg
    50                  55                  60

Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Asn Thr Ala Tyr Met
65                  70                  75                  80

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

Arg Glu Pro Glu Arg Phe Gly Asp Ser Thr Gly Gln Val Trp Gly Arg
            100                 105                 110

Gly Thr Met Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly
        115                 120                 125

Gly Ser Gly Gly Ser Arg Ser Ala Gln Ala Val Leu Thr Gln Pro Ser
    130                 135                 140

Ser Val Ser Gly Ala Pro Arg Gln Arg Val Thr Ile Ser Cys Thr Gly
145                 150                 155                 160

Ser Ser Ser Asn Ile Gly Ala Gly Tyr Gly Val His Trp Tyr Gln Gln
                165                 170                 175

Leu Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr Gly Asn Ser Asn Arg
            180                 185                 190

Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser
        195                 200                 205
```

Ala Ser Leu Ala Ile Thr Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr
210 215 220

Tyr Cys Tyr His Trp Asp Lys Glu Gln Ser Gly Tyr Val Phe Gly Thr
225 230 235 240

Gly Thr Gln Leu Thr Val Leu Ser Ala
245

<210> 296
<211> 5
<212> PRT
<213> Homo sapiens

<400> 296
Asp Tyr Tyr Met His
1 5

<210> 297
<211> 17
<212> PRT
<213> Homo sapiens

<400> 297
Trp Ile Asn Pro Tyr Thr Gly Gly Ala Phe Tyr Ala Gln Lys Phe Arg
1 5 10 15

Gly

<210> 298
<211> 12
<212> PRT
<213> Homo sapiens

<400> 298
Glu Pro Glu Arg Phe Gly Asp Ser Thr Gly Gln Val
1 5 10

<210> 299
<211> 14
<212> PRT
<213> Homo sapiens

<400> 299
Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Gly Val His
1 5 10

<210> 300
<211> 7
<212> PRT
<213> Homo sapiens

<400> 300
Gly Asn Ser Asn Arg Pro Ser
1 5

<210> 301
<211> 11
<212> PRT
<213> Homo sapiens

<400> 301
Tyr His Trp Asp Lys Glu Gln Ser Gly Tyr Val
1 5 10

<210> 302
<211> 363
<212> DNA
<213> Homo sapiens

<400> 302
caggtccagt tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc gactactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg ggtgggatgg atcaaccctt atactggtgg cgcattctat 180

gcacagaagt ttcggggcag ggtcacaatg accagggaca cgtccatcaa cacagcctac 240

atggagctaa gcagactggg atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaagattcg gcgactccac ggggcaggtc tggggccggg ggacaatggt caccgtctcg 360

agt 363

<210> 303
<211> 339
<212> DNA
<213> Homo sapiens

<400> 303
caggctgtgc tgactcagcc gtcctcagtg tctggggccc caaggcagag ggtcaccatc 60

tcctgcactg ggagcagctc caacatcggg gcaggttatg gtgtacactg gtaccaacag 120

cttccaggaa cagccccaa actcctcatc tatggtaaca gcaatcggcc ctcaggggtc 180

cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

caggctgagg atgaggctga ttattactgc taccactggg acaaggagca gagtggttat 300

gtcttcggaa ctgggaccca gctcaccgtt ttaagtgcg 339

<210> 304
<211> 750
<212> DNA
<213> Homo sapiens

<400> 304
caggtccagt tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc gactactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg ggtgggatgg atcaaccctt atactggtgg cgcattctat 180

gcacagaagt ttcggggcag ggtcacaatg accagggaca cgtccatcaa cacagcctac 240

atggagctaa gcagactggg atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaagattcg gcgactccac ggggcaggtc tggggccggg ggacaatggt caccgtctcg 360

agtgggggcg gcggttcagg cggaggtggc tctggcggta gcagaagtgc acaggctgtg 420

ctgactcagc cgtcctcagt gtctggggcc ccaaggcaga gggtcaccat ctcctgcact 480

gggagcagct ccaacatcgg ggcaggttat ggtgtacact ggtaccaaca gcttccagga 540

acagccccca aactcctcat ctatggtaac agcaatcggc cctcaggggt ccctgaccga 600

ttctctggct ccaagtctgg cacctcagcc tccctggcca tcactgggct ccaggctgag 660

gatgaggctg attattactg ctaccactgg gacaaggagc agagtggtta tgtcttcgga 720

actgggaccc agctcaccgt tttaagtgcg 750

<210> 305
<211> 15
<212> DNA
<213> Homo sapiens

<400> 305
gactactata tgcac 15

<210> 306
<211> 51
<212> DNA
<213> Homo sapiens

<400> 306
tggatcaacc cttatactgg tggcgcattc tatgcacaga agtttcgggg c 51

<210> 307
<211> 36
<212> DNA
<213> Homo sapiens

<400> 307
gaacctgaaa gattcggcga ctccacgggg caggtc 36

<210> 308
<211> 42
<212> DNA
<213> Homo sapiens

<400> 308
actgggagca gctccaacat cggggcaggt tatggtgtac ac 42

<210> 309
<211> 21
<212> DNA
<213> Homo sapiens

<400> 309
ggtaacagca atcggccctc a 21

<210> 310
<211> 33
<212> DNA
<213> Homo sapiens

<400> 310
taccactggg acaaggagca gagtggttat gtc 33

<210> 311
<211> 121
<212> PRT
<213> Homo sapiens

<400> 311

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

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

Ala Arg Glu Pro Glu Lys Phe Gly Glu Ser Ser Gly Gln Leu Trp Gly
100 105 110

Arg Gly Thr Met Val Thr Ile Ser Ser
115 120

<210> 312
<211> 113
<212> PRT
<213> Homo sapiens

<400> 312
Gln Ala Val Leu Thr Gln Pro Ser Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

Arg Val Thr Ile Ser Cys Thr Gly Ser Ser Ser Asn Ile Gly Pro Gly
20 25 30

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

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

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Gly
85 90 95

Leu Ser Gly Tyr Val Phe Gly Thr Gly Thr Gln Leu Thr Val Leu Ser
100 105 110

Ala

<210> 313
<211> 250
<212> PRT
<213> Homo sapiens

<400> 313
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Gln Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Tyr Thr Gly Ser Ala Phe Tyr Ala Gln Lys Phe
50 55 60

Arg Gly Arg Ala Thr Met Thr Arg Asn Thr Ser Ile Asn Thr Ala Tyr
65 70 75 80

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

Ala Arg Glu Pro Glu Lys Phe Gly Glu Ser Ser Gly Gln Leu Trp Gly
100 105 110

Arg Gly Thr Met Val Thr Ile Ser Ser Gly Gly Gly Gly Ser Gly Gly
115 120 125

Gly Gly Ser Gly Gly Ser Gly Ser Ala Gln Ala Val Leu Thr Gln Pro
130 135 140

Ser Ser Val Ser Gly Ala Pro Gly Gln Arg Val Thr Ile Ser Cys Thr
145 150 155 160

Gly Ser Ser Ser Asn Ile Gly Pro Gly Tyr Gly Val His Trp Tyr Gln
165 170 175

Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr Gly Asp Ser Asn
180 185 190

Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr
195 200 205

Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln Ala Glu Asp Glu Ala Asp
210 215 220

Tyr Tyr Cys Gln Ser Tyr Asp Ser Gly Leu Ser Gly Tyr Val Phe Gly
225 230 235 240

Thr Gly Thr Gln Leu Thr Val Leu Ser Ala
245 250

<210> 314
<211> 5
<212> PRT
<213> Homo sapiens

<400> 314
Asp Tyr Tyr Met His
1 5

<210> 315
<211> 17
<212> PRT
<213> Homo sapiens

<400> 315
Trp Ile Asn Pro Tyr Thr Gly Ser Ala Phe Tyr Ala Gln Lys Phe Arg
1 5 10 15

Gly

<210> 316
<211> 12
<212> PRT
<213> Homo sapiens

<400> 316
Glu Pro Glu Lys Phe Gly Glu Ser Ser Gly Gln Leu
1 5 10

<210> 317
<211> 14
<212> PRT
<213> Homo sapiens

<400> 317
Thr Gly Ser Ser Ser Asn Ile Gly Pro Gly Tyr Gly Val His
1 5 10

<210> 318
<211> 7
<212> PRT
<213> Homo sapiens

<400> 318
Gly Asp Ser Asn Arg Pro Ser
1 5

<210> 319
<211> 11
<212> PRT
<213> Homo sapiens

<400> 319
Gln Ser Tyr Asp Ser Gly Leu Ser Gly Tyr Val
1 5 10

<210> 320
<211> 363
<212> DNA
<213> Homo sapiens

<400> 320
gaagtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgtcagg cttctggata caccttcacc gactactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg ggtggggtgg atcaaccctt atactggtag cgcattctat 180

gcacagaagt ttcggggcag ggccacaatg accaggaaca cgtccatcaa cacagcctac 240

atggagctga gcagactggg atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaaaattcg gcgagtccag cggccagttg tggggccggg ggacaatggt caccatctcg 360

agt 363

<210> 321
<211> 339
<212> DNA
<213> Homo sapiens

<400> 321
caggctgtgc tgactcagcc gtcctcagtg tctggggccc agggcagag ggtcaccatc 60

tcctgcactg ggagcagctc caacatcggg gcaggttatg gtgtacactg gtaccaacag 120

cttccaggaa cagccccaa actcctcatc tatggtgaca gcaatcggcc ctcaggggtc 180

cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

caggccgagg atgaggctga ttattactgc cagtcctatg acagcggcct gagtggttat 300

gtcttcggaa ctgggaccca gctcaccgtt ttaagtgcg 339

<210> 322
<211> 750
<212> DNA
<213> Homo sapiens

<400> 322
gaagtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgtcagg cttctggata caccttcacc gactactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg ggtggggtgg atcaaccctt atactggtag cgcattctat 180

gcacagaagt ttcggggcag ggccacaatg accaggaaca cgtccatcaa cacagcctac 240

atggagctga gcagactggg atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaaaattcg gcgagtccag cggccagttg tggggccggg ggacaatggt caccatctcg 360

agtggaggcg gcggttcagg cggaggtggc tctggcggta gcggaagtgc acaggctgtg 420

ctgactcagc cgtcctcagt gtctggggcc ccagggcaga gggtcaccat ctcctgcact 480

gggagcagct ccaacatcgg ggcaggttat ggtgtacact ggtaccaaca gcttccagga 540

acagccccca aactcctcat ctatggtgac agcaatcggc cctcaggggt ccctgaccga 600

ttctctggct ccaagtctgg cacctcagcc tccctggcca tcactgggct ccaggccgag 660

gatgaggctg attattactg ccagtcctat gacagcggcc tgagtggtta tgtcttcgga 720

actgggaccc agctcaccgt tttaagtgcg 750

<210> 323
<211> 15
<212> DNA
<213> Homo sapiens

<400> 323
gactactata tgcac 15

<210> 324
<211> 51
<212> DNA
<213> Homo sapiens

<400> 324
tggatcaacc cttatactgg tagcgcattc tatgcacaga agtttcgggg c 51

<210> 325
<211> 36
<212> DNA
<213> Homo sapiens

<400> 325
gaacctgaaa aattcggcga gtccagcggc cagttg 36

<210> 326
<211> 42
<212> DNA
<213> Homo sapiens

<400> 326
actgggagca gctccaacat cggggcaggt tatggtgtac ac 42

<210> 327
<211> 21
<212> DNA
<213> Homo sapiens

<400> 327
ggtgacagca atcggccctc a 21

<210> 328
<211> 33
<212> DNA
<213> Homo sapiens

<400> 328
cagtcctatg acagcggcct gagtggttat gtc 33

<210> 329
<211> 121
<212> PRT
<213> Homo sapiens

<400> 329
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr His Tyr
20 25 30

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

Gly Trp Ile Asn Pro Tyr Thr Gly Gly Ala Phe Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Asn Thr Ala Tyr
65 70 75 80

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

Ala Arg Glu Pro Glu Lys Phe Asp Ser Pro Asn Ala Glu Ile Trp Gly
100 105 110

Arg Gly Thr Met Val Thr Ile Ser Ser
115 120

<210> 330
<211> 113
<212> PRT
<213> Homo sapiens

<400> 330
Gln Ala Val Leu Thr Gln Pro Ser Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

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

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

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

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser
85 90 95

Leu Ser Gly Tyr Val Phe Gly Thr Gly Thr Gln Leu Thr Val Leu Ser
100 105 110

Ala

<210> 331
<211> 250
<212> PRT
<213> Homo sapiens

<400> 331
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr His Tyr
20 25 30

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

```
Gly Trp Ile Asn Pro Tyr Thr Gly Gly Ala Phe Tyr Ala Gln Lys Phe
    50                  55                  60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Asn Thr Ala Tyr
65                  70                  75                  80

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

Ala Arg Glu Pro Glu Lys Phe Asp Ser Pro Asn Ala Glu Ile Trp Gly
            100                 105                 110

Arg Gly Thr Met Val Thr Ile Ser Ser Glu Gly Gly Gly Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Ser Gly Ser Ala Gln Ala Val Leu Thr Gln Pro
    130                 135                 140

Ser Ser Val Ser Gly Ala Pro Gly Gln Arg Val Thr Ile Ser Cys Thr
145                 150                 155                 160

Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Gly Val His Trp Tyr Gln
                165                 170                 175

Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr Gly Asn Ser Asn
            180                 185                 190

Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr
        195                 200                 205

Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln Ala Glu Asp Glu Ala Asp
    210                 215                 220

Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser Leu Ser Gly Tyr Val Phe Gly
225                 230                 235                 240

Thr Gly Thr Gln Leu Thr Val Leu Ser Ala
                245                 250
```

<210> 332
<211> 5
<212> PRT
<213> Homo sapiens

<400> 332
His Tyr Tyr Met His
1 5

<210> 333
<211> 17
<212> PRT
<213> Homo sapiens

<400> 333
Trp Ile Asn Pro Tyr Thr Gly Gly Ala Phe Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 334
<211> 12
<212> PRT
<213> Homo sapiens

<400> 334
Glu Pro Glu Lys Phe Asp Ser Pro Asn Ala Glu Ile
1 5 10

<210> 335
<211> 14
<212> PRT
<213> Homo sapiens

<400> 335
Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Gly Val His
1 5 10

<210> 336
<211> 7
<212> PRT
<213> Homo sapiens

<400> 336
Gly Asn Ser Asn Arg Pro Ser
1 5

<210> 337
<211> 11
<212> PRT
<213> Homo sapiens

<400> 337
Gln Ser Tyr Asp Ser Ser Leu Ser Gly Tyr Val
1 5 10

<210> 338
<211> 363
<212> DNA
<213> Homo sapiens

<400> 338
caggtccagc tggtgcagtc tggggctgag gtgaaaaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc cactactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg ggtgggatgg atcaaccctt atactggtgg cgcattctat 180

gcacagaagt ttcagggcag ggtcacaatg accagggaca cgtccatcaa cacagcctac 240

atggagctga gcagactggg atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaaaattcg actcgccgaa cgccgagatc tggggccggg ggacaatggt caccatctcg 360

agt 363

<210> 339
<211> 339
<212> DNA
<213> Homo sapiens

<400> 339
caggctgtgc tgactcagcc gtcctcagtg tctggggccc cagggcagag ggtcaccatc 60

tcctgcactg ggagcagctc caacatcggg gcaggttatg gtgtacactg gtaccaacag 120

cttccaggaa cagccccaa actcctcatc tatggtaaca gcaatcggcc ctcaggggtc 180

cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

caggctgagg atgaggctga ttattactgc cagtcctatg acagcagcct gagtggttat 300

gtcttcggaa ccgggaccca gctcaccgtt ttaagtgcg 339

<210> 340
<211> 750
<212> DNA
<213> Homo sapiens

<400> 340
caggtccagc tggtgcagtc tggggctgag gtgaaaaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc cactactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg ggtgggatgg atcaaccctt atactggtgg cgcattctat 180

gcacagaagt ttcagggcag ggtcacaatg accagggaca cgtccatcaa cacagcctac 240

atggagctga gcagactggg atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaaaattcg actcgccgaa cgccgagatc tggggccggg ggacaatggt caccatctcg 360

agtgaaggcg gcggttcagg cggaggtggc tctggcggta gcggaagtgc acaggctgtg 420

ctgactcagc cgtcctcagt gtctggggcc ccagggcaga gggtcaccat ctcctgcact 480

gggagcagct ccaacatcgg ggcaggttat ggtgtacact ggtaccaaca gcttccagga 540

acagccccca aactcctcat ctatggtaac agcaatcggc cctcaggggt ccctgaccga 600

ttctctggct ccaagtctgg cacctcagcc tccctggcca tcactgggct ccaggctgag 660

gatgaggctg attattactg ccagtcctat gacagcagcc tgagtggtta tgtcttcgga 720

accgggaccc agctcaccgt tttaagtgcg 750

<210> 341
<211> 15
<212> DNA
<213> Homo sapiens

<400> 341
cactactata tgcac 15

<210> 342
<211> 51
<212> DNA
<213> Homo sapiens

<400> 342
tggatcaacc cttatactgg tggcgcattc tatgcacaga agtttcaggg c 51

<210> 343
<211> 36
<212> DNA
<213> Homo sapiens

<400> 343
gaacctgaaa aattcgactc gccgaacgcc gagatc 36

<210> 344
<211> 42
<212> DNA
<213> Homo sapiens

<400> 344
actgggagca gctccaacat cggggcaggt tatggtgtac ac 42

<210> 345
<211> 21
<212> DNA
<213> Homo sapiens

<400> 345
ggtaacagca atcggccctc a 21

<210> 346
<211> 33
<212> DNA
<213> Homo sapiens

<400> 346
cagtcctatg acagcagcct gagtggttat gtc 33

<210> 347
<211> 121
<212> PRT
<213> Homo sapiens

<400> 347

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

<210> 348
<211> 112
<212> PRT
<213> Homo sapiens

<400> 348
Gln Ala Val Leu Thr Pro Pro Ser Val Ser Gly Ala Pro Gly Gln Arg
1 5 10 15

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

Gly Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Ile
35 40 45

Ile Tyr Gly Asp Ser Ser Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

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

Ser Gly Tyr Val Phe Gly Thr Gly Thr Gln Leu Thr Val Leu Ser Ala
100 105 110

<210> 349
<211> 249
<212> PRT
<213> Homo sapiens

<400> 349
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

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

Gly Trp Ile Asn Pro Tyr Thr Gly Ser Ala Phe Tyr Ala Gln Lys Phe
50 55 60

Arg Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Asn Thr Ala Tyr
65 70 75 80

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

```
Ala Arg Glu Pro Glu Lys Phe Asp Ser Asp Asp Ser Asp Val Trp Gly
            100                 105                 110

Arg Gly Thr Met Val Thr Val Ser Gly Gly Gly Gly Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Ser Gly Ser Ala Gln Ala Val Leu Thr Pro Pro
    130                 135                 140

Ser Val Ser Gly Ala Pro Gly Gln Arg Val Thr Ile Ser Cys Thr Gly
145                 150                 155                 160

Ser Ser Ser Asn Ile Gly Ala Gly Tyr Gly Val His Trp Tyr Gln Gln
                165                 170                 175

Leu Pro Gly Thr Ala Pro Lys Leu Ile Ile Tyr Gly Asp Ser Ser Arg
            180                 185                 190

Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser
        195                 200                 205

Ala Ser Leu Ala Ile Thr Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr
    210                 215                 220

Tyr Cys Gln Ser Tyr Asp Asn Ser Leu Ser Gly Tyr Val Phe Gly Thr
225                 230                 235                 240

Gly Thr Gln Leu Thr Val Leu Ser Ala
                245
```

<210> 350
<211> 5
<212> PRT
<213> Homo sapiens

<400> 350
Asn Tyr Tyr Met His
1   5

<210> 351
<211> 17
<212> PRT
<213> Homo sapiens

<400> 351
Trp Ile Asn Pro Tyr Thr Gly Ser Ala Phe Tyr Ala Gln Lys Phe Arg
1 5 10 15

Gly

<210> 352
<211> 12
<212> PRT
<213> Homo sapiens

<400> 352
Glu Pro Glu Lys Phe Asp Ser Asp Asp Ser Asp Val
1 5 10

<210> 353
<211> 14
<212> PRT
<213> Homo sapiens

<400> 353
Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Gly Val His
1 5 10

<210> 354
<211> 8
<212> PRT
<213> Homo sapiens

<400> 354
Gly Asp Ser Ser Arg Pro Ser Gly
1 5

<210> 355
<211> 11
<212> PRT
<213> Homo sapiens

<400> 355
Gln Ser Tyr Asp Asn Ser Leu Ser Gly Tyr Val
1 5 10

<210> 356
<211> 363
<212> DNA
<213> Homo sapiens

<400> 356
caggttcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc aactactata tgcactgggt gcgacaggcc 120

cctggacagg ggcttgagtg ggtgggatgg atcaaccctt atactggtag cgcattctat 180

gcacagaagt ttcggggcag ggttacaatg accagggaca cgtccatcaa cacagcctac 240

atggagctga gcagactggg atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaaaattcg actccgacga ctccgacgtc tggggccgcg ggacaatggt caccgtctcg 360

ggt 363

<210> 357
<211> 339
<212> DNA
<213> Homo sapiens

<400> 357
caggctgtgc tgactcagcc gccctcagtg tctggggccc agggcagag ggtcaccatc 60

tcctgcactg ggagcagctc caacatcggg gcaggttatg gtgtacactg gtaccaacag 120

cttccaggaa cagccccaa actcatcatc tatggtgaca gcagtcggcc ctcaggggtc 180

cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

caggctgagg atgaggctga ttattactgc cagtcctatg acaacagcct gagcggttat 300

gtcttcggaa ctgggaccca gctcaccgtt ttaagtgcg 339

<210> 358
<211> 750
<212> DNA
<213> Homo sapiens

<400> 358
caggttcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc aactactata tgcactgggt gcgacaggcc 120

cctggacagg ggcttgagtg ggtgggatgg atcaaccctt atactggtag cgcattctat 180

gcacagaagt ttcggggcag ggttacaatg accagggaca cgtccatcaa cacagcctac 240

atggagctga gcagactggg atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaaaattcg actccgacga ctccgacgtc tggggccgcg ggacaatggt caccgtctcg 360

ggtggaggcg gcagttcagg cggaggtggc tctggcggta gcggaagtgc acaggctgtg 420

ctgactcagc cgccctcagt gtctggggcc ccagggcaga gggtcaccat ctcctgcact 480

gggagcagct ccaacatcgg ggcaggttat ggtgtacact ggtaccaaca gcttccagga 540

acagccccca aactcatcat ctatggtgac agcagtcggc cctcaggggt ccctgaccga 600

ttctctggct ccaagtctgg cacctcagcc tccctggcca tcactgggct ccaggctgag 660

gatgaggctg attattactg ccagtcctat gacaacagcc tgagcggtta tgtcttcgga 720

actgggaccc agctcaccgt tttaagtgcg 750

<210> 359
<211> 15
<212> DNA
<213> Homo sapiens

<400> 359
aactactata tgcac 15

<210> 360
<211> 51
<212> DNA
<213> Homo sapiens

<400> 360
tggatcaacc cttatactgg tagcgcattc tatgcacaga agtttcgggg c 51

<210> 361
<211> 36
<212> DNA
<213> Homo sapiens

<400> 361
gaacctgaaa aattcgactc cgacgactcc gacgtc 36

<210> 362
<211> 42
<212> DNA
<213> Homo sapiens

<400> 362
actgggagca gctccaacat cggggcaggt tatggtgtac ac 42

<210> 363
<211> 24
<212> DNA
<213> Homo sapiens

<400> 363
ggtgacagca gtcggccctc aggg 24

<210> 364
<211> 33
<212> DNA
<213> Homo sapiens

<400> 364
cagtcctatg acaacagcct gagcggttat gtc 33

<210> 365
<211> 119
<212> PRT
<213> Homo sapiens

<400> 365
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15

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

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

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

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

Thr Leu Val Thr Val Ser Ser
115

<210> 366
<211> 108
<212> PRT
<213> Homo sapiens

<400> 366
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 Glu Gly Ile Tyr His 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 Ala Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

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

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

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

<210> 367
<211> 243
<212> PRT
<213> Homo sapiens

<400> 367
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15

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

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

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

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

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser Thr
130 135 140

Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser
145 150 155 160

Glu Gly Ile Tyr His Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
165 170 175

Ala Pro Lys Leu Leu Ile Tyr Lys Ala Ser Ser Leu Ala Ser Gly Val
180 185 190

Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
195 200 205

Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
210 215 220

Tyr Ser Asn Tyr Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile
225 230 235 240

Lys Arg Ala

<210> 368
<211> 5
<212> PRT
<213> Homo sapiens

<400> 368
Asp Tyr Tyr Met Ser
1 5

<210> 369
<211> 17
<212> PRT
<213> Homo sapiens

<400> 369
Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 370
<211> 10
<212> PRT
<213> Homo sapiens

<400> 370
Gly Leu Trp Val Trp Asp Pro Leu Asp Tyr
1 5 10

<210> 371
<211> 11
<212> PRT
<213> Homo sapiens

<400> 371
Arg Ala Ser Glu Gly Ile Tyr His Trp Leu Ala
1 5 10

<210> 372
<211> 7
<212> PRT
<213> Homo sapiens

<400> 372
Lys Ala Ser Ser Leu Ala Ser
1 5

<210> 373
<211> 9
<212> PRT
<213> Homo sapiens

<400> 373
Gln Gln Tyr Ser Asn Tyr Pro Leu Thr
1 5

<210> 374
<211> 357
<212> DNA
<213> Homo sapiens

<400> 374
caagtgcagc tggtggagtc tgggggaggc ttggtcaagc ctggagggtc cctgagactc 60

tcctgtgcag cctctggatt caccttcagt gactactaca tgagctggat ccgccaggct 120

ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtggtag cacatactac 180

gcagactccg tgaagggccg gatcaccatc tccagagaca acgccaagaa ctcactgtat 240

ctgcaaatga acagcctgag agctgaggac acggccgtgt attactgtgc gagagggctt 300

tgggtttggg atcctcttga ctactggggc agaggaaccc tggtcaccgt ctcttca 357

<210> 375
<211> 324
<212> DNA
<213> Homo sapiens

<400> 375
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgttggaga cagagtcacc 60

atcacctgcc gggccagtga gggtatttat cactggttgg cctggtatca gcagaagcca 120

gggaaagccc ctaaactcct gatctataag gcctctagtt tagccagtgg ggtcccatca 180

aggttcagcg gcagtggatc tgggacagag ttcactctca ccatcagcag cctgcagcct 240

gatgattttg caacttatta ctgccaacaa tatagtaatt atccgctcac tttcggcgga 300

gggaccaagg tggagatcaa acgt 324

<210> 376
<211> 729
<212> DNA
<213> Homo sapiens

<400> 376
caagtgcagc tggtggagtc tgggggaggc ttggtcaagc ctggagggtc cctgagactc 60

tcctgtgcag cctctggatt caccttcagt gactactaca tgagctggat ccgccaggct 120

ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtggtag cacatactac 180

gcagactccg tgaagggccg gatcaccatc tccagagaca acgccaagaa ctcactgtat 240

ctgcaaatga acagcctgag agctgaggac acggccgtgt attactgtgc gagagggctt 300

tgggttttggg atcctcttga ctactggggc agaggaaccc tggtcaccgt ctcttcaggt 360

ggaggcggtt caggcggagg tggcagcggc ggtggcggat cggacatcca gatgacccag 420

tctccttcca ccctgtctgc atctgttgga gacagagtca ccatcacctg ccgggccagt 480

gagggtattt atcactggtt ggcctggtat cagcagaagc cagggaaagc ccctaaactc 540

ctgatctata aggcctctag tttagccagt ggggtcccat caaggttcag cggcagtgga 600

tctgggacag atttcactct caccatcagc agcctgcagc ctgatgattt tgcaacttat 660

tactgccaac aatatagtaa ttatccgctc actttcggcg gagggaccaa ggtggagatc 720

aaacgtgcg 729

<210> 377
<211> 15
<212> DNA
<213> Homo sapiens

<400> 377
gactactaca tgagc 15

<210> 378
<211> 51
<212> DNA
<213> Homo sapiens

<400> 378
gctattagtg gtagtggtgg tagcacatac tacgcagact ccgtgaaggg c 51

<210> 379
<211> 30
<212> DNA
<213> Homo sapiens

<400> 379
gggctttggg tttgggatcc tcttgactac 30

<210> 380
<211> 33
<212> DNA
<213> Homo sapiens

<400> 380
cgggccagtg agggtattta tcactggttg gcc 33

<210> 381
<211> 21
<212> DNA
<213> Homo sapiens

<400> 381
aaggcctcta gtttagccag t 21

<210> 382
<211> 27
<212> DNA
<213> Homo sapiens

<400> 382
caacaatata gtaattatcc gctcact 27

<210> 383
<211> 5
<212> PRT
<213> Homo sapiens

<400> 383
Ser Tyr Gly Ile Ser
1 5

<210> 384
<211> 108
<212> PRT
<213> Homo sapiens

<400> 384

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Thr	Leu	Ser	Ala	Ser	Val	Gly
1				5					10					15	

Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Glu	Gly	Ile	Tyr	His	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	Ala	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly
	50					55					60				

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

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

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

<210> 385
<211> 243
<212> PRT
<213> Homo sapiens

<400> 385

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1				5					10					15	

Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Ser	Tyr
			20					25					30		

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

Gly	Trp	Ile	Ser	Ala	Tyr	Thr	Gly	Asn	Thr	Asn	Tyr	Ala	Gln	Lys	Phe
	50					55					60				

Gln	Gly	Arg	Val	Thr	Met	Thr	Thr	Asp	Thr	Ser	Thr	Ser	Thr	Ala	Tyr
65					70					75					80

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

Ala Arg Asp Arg Gly Tyr Tyr Asp Ala Phe Asp Ile Trp Gly Gln Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
        115                 120                 125

Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser Thr
    130                 135                 140

Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser
145                 150                 155                 160

Glu Gly Ile Tyr His Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
                165                 170                 175

Ala Pro Lys Leu Leu Ile Tyr Lys Ala Ser Ser Leu Ala Ser Gly Val
            180                 185                 190

Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
        195                 200                 205

Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
    210                 215                 220

Tyr Ser Asn Tyr Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile
225                 230                 235                 240

Lys Arg Ala
```

<210> 386
<211> 5
<212> PRT
<213> Homo sapiens

<400> 386
Ser Tyr Gly Ile Ser
1   5

<210> 387
<211> 17
<212> PRT
<213> Homo sapiens

<400> 387
Trp Ile Ser Ala Tyr Thr Gly Asn Thr Asn Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 388
<211> 10
<212> PRT
<213> Homo sapiens

<400> 388
Asp Arg Gly Tyr Tyr Asp Ala Phe Asp Ile
1 5 10

<210> 389
<211> 11
<212> PRT
<213> Homo sapiens

<400> 389
Arg Ala Ser Glu Gly Ile Tyr His Trp Leu Ala
1 5 10

<210> 390
<211> 7
<212> PRT
<213> Homo sapiens

<400> 390
Lys Ala Ser Ser Leu Ala Ser
1 5

<210> 391
<211> 9
<212> PRT
<213> Homo sapiens

<400> 391
Gln Gln Tyr Ser Asn Tyr Pro Leu Thr
1 5

<210> 392
<211> 357
<212> DNA
<213> Homo sapiens

<400> 392
caggtgcagc tggtgcagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggtta cacctttacc agttatggta tcagctgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggatgg atcagcgctt acactggtaa cacaaactat 180

gcacagaagt tccagggcag agtcaccatg accacagaca catccacgag cacagcctac 240

atggaactga ggagcctgag atctgacgac acggccgtgt attactgtgc gagagatcgt 300

ggatactatg atgcttttga tatctggggc caaggcaccc tggtcaccgt ctcctca 357

<210> 393
<211> 324
<212> DNA
<213> Homo sapiens

<400> 393
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgttggaga cagagtcacc 60

atcacctgcc gggccagtga gggtatttat cactggttgg cctggtatca gcagaagcca 120

gggaaagccc ctaaactcct gatctataag gcctctagtt tagccagtgg ggtcccatca 180

aggttcagcg gcagtggatc tgggacagag ttcactctca ccatcagcag cctgcagcct 240

gatgattttg caacttatta ctgccaacaa tatagtaatt atccgctcac tttcggcgga 300

gggaccaagg tggagatcaa acgt 324

<210> 394
<211> 729
<212> DNA
<213> Homo sapiens

<400> 394
caggtgcagc tggtgcagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggtta cacctttacc agttatggta tcagctgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggatgg atcagcgctt acactggtaa cacaaactat 180

gcacagaagt tccagggcag agtcaccatg accacagaca catccacgag cacagcctac 240

atggaactga ggagcctgag atctgacgac acggccgtgt attactgtgc gagagatcgt 300

ggatactatg atgcttttga tatctggggc caaggcaccc tggtcaccgt ctcctcaggt 360

ggaggcggtt caggcggagg tggcagcggc ggtggcggat cggacatcca gatgacccag 420

tctccttcca ccctgtctgc atctgttgga gacagagtca ccatcacctg ccgggccagt 480

gagggtattt atcactggtt ggcctggtat cagcagaagc cagggaaagc ccctaaactc 540

ctgatctata aggcctctag tttagccagt ggggtcccat caaggttcag cggcagtgga 600

tctgggacag agttcactct caccatcagc agcctgcagc ctgatgattt tgcaacttat 660

tactgccaac aatatagtaa ttatccgctc actttcggcg gagggaccaa ggtggagatc 720

aaacgtgcg 729

<210> 395
<211> 15
<212> DNA
<213> Homo sapiens

<400> 395
agttatggta tcagc 15

<210> 396
<211> 51
<212> DNA
<213> Homo sapiens

<400> 396
tggatcagcg cttacactgg taacacaaac tatgcacaga agttccaggg c 51

<210> 397
<211> 30
<212> DNA
<213> Homo sapiens

<400> 397
gatcgtggat actatgatgc ttttgatatc 30

<210> 398
<211> 33
<212> DNA
<213> Homo sapiens

<400> 398
cgggccagtg agggtattta tcactggttg gcc 33

<210> 399
<211> 21
<212> DNA
<213> Homo sapiens

<400> 399
aaggcctcta gtttagccag t 21

<210> 400
<211> 27
<212> DNA
<213> Homo sapiens

<400> 400
caacaatata gtaattatcc gctcact 27

<210> 401
<211> 119
<212> PRT
<213> Homo sapiens

<400> 401
Gln Met Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

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

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

Ala His Ile Trp Tyr Asp Gly Ser Asn Glu Lys Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Met Thr Val Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

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

Ala Thr Glu Gln His Trp Ile Thr Ala Phe Asp Ile Trp Gly Lys Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 402
<211> 111
<212> PRT
<213> Homo sapiens

<400> 402
Gln Ser Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr
20 25 30

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

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

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80

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

Ser Thr Arg Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 403
<211> 246
<212> PRT
<213> Homo sapiens

<400> 403
Gln Met Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

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

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

Ala His Ile Trp Tyr Asp Gly Ser Asn Glu Lys Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Met Thr Val Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

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

Ala Thr Glu Gln His Trp Ile Thr Ala Phe Asp Ile Trp Gly Lys Gly
100 105 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Ala Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Gln Ser Ala Leu Thr Gln Pro Ala Ser Val
130 135 140

Ser Gly Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser
145 150 155 160

Ser Asp Val Gly Gly Tyr Asn Tyr Val Ser Trp Tyr Gln Gln His Pro
165 170 175

Gly Lys Ala Pro Lys Leu Met Ile Tyr Glu Gly Ser Lys Arg Pro Ser
180 185 190

Gly Val Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser
195 200 205

Leu Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys
210 215 220

Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val Phe Gly Gly Gly Thr Lys
225 230 235 240

Leu Thr Val Leu Gly Ala
245

<210> 404
<211> 5
<212> PRT
<213> Homo sapiens

<400> 404
Asn Tyr Gly Met Tyr
1 5

<210> 405
<211> 17
<212> PRT
<213> Homo sapiens

<400> 405
His Ile Trp Tyr Asp Gly Ser Asn Glu Lys Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 406
<211> 10
<212> PRT
<213> Homo sapiens

<400> 406
Glu Gln His Trp Ile Thr Ala Phe Asp Ile
1 5 10

<210> 407
<211> 14
<212> PRT
<213> Homo sapiens

<400> 407
Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr Asn Tyr Val Ser
1 5 10

<210> 408
<211> 7
<212> PRT
<213> Homo sapiens

<400> 408
Glu Gly Ser Lys Arg Pro Ser
1 5

<210> 409
<211> 10
<212> PRT
<213> Homo sapiens

<400> 409
Ser Ser Tyr Thr Thr Arg Ser Thr Arg Val
1 5 10

<210> 410
<211> 357
<212> DNA
<213> Homo sapiens

<400> 410
cagatgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60

tcctgtgcag cctctggatt caccttcagt aactatggca tgtactgggt ccgccaggct 120

ccaggcaagg ggctggagtg ggtggcacat atttggtatg atggaagtaa tgaaaagtat 180

gcagactccg tgaagggccg aatgaccgtc tccagagaca attccaagaa cacgttgtat 240

ttgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gacagagcaa 300

cactggatta ctgcttttga tatctggggc aaaggaaccc tggtcaccgt ctcctca 357

<210> 411
<211> 333
<212> DNA
<213> Homo sapiens

<400> 411
cagtctgccc tgactcagcc tgcctccgtg tctgggtctc ctggacagtc gatcaccatc 60

tcctgcactg gaaccagcag tgacgttggt ggttataact atgtctcctg gtaccaacaa 120

cacccaggca aagccccaa actcatgatt tatgagggca gtaagcggcc ctcaggggtt 180

tctaatcgct tctctggctc caagtctggc aacacggcct ccctgacaat ctctgggctc 240

caggctgagg acgaggctga ttactactgc agctcatata caaccaggag cactcgagtt 300

ttcggcggag ggaccaagct gaccgtccta ggt 333

<210> 412
<211> 738
<212> DNA
<213> Homo sapiens

<400> 412
cagatgcagc tggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60

tcctgtgcag cctctggatt caccttcagt aactatggca tgtactgggt ccgccaggct 120

ccaggcaagg ggctggagtg ggtggcacat atttggtatg atggaagtaa tgaaaagtat 180

gcagactccg tgaagggccg aatgaccgtc tccagagaca attccaagaa cacgttgtat 240

ttgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gacagagcaa 300

cactggatta ctgcttttga tatctggggc aaaggcaccc tggtcaccgt ctcctcaggt 360

ggaggcggtt caggcgcagg tggcagcggc ggtggcggat cacagtctgc gctgactcag 420

cctgcctccg tgtctgggtc tcctggacag tcgatcacca tctcctgcac tggaaccagc 480

agtgacgttg gtggttataa ctatgtctcc tggtaccaac aacacccagg caaagccccc 540

aaactcatga tttatgaggg cagtaagcgg ccctcagggg tttctaatcg cttctctggc 600

tccaagtctg gcaacacggc ctccctgaca atctctgggc tccaggctga ggacgaggct 660

gattattact gcagctcata tacaaccagg agcactcgag ttttcggcgg agggaccaag 720

ctgaccgtcc taggtgcg 738

<210> 413
<211> 15
<212> DNA
<213> Homo sapiens

<400> 413
aactatggca tgtac 15

<210> 414
<211> 51
<212> DNA
<213> Homo sapiens

<400> 414
catatttggt atgatggaag taatgaaaag tatgcagact ccgtgaaggg c 51

<210> 415
<211> 30
<212> DNA
<213> Homo sapiens

<400> 415
gagcaacact ggattactgc ttttgatatc 30

<210> 416
<211> 42
<212> DNA
<213> Homo sapiens

<400> 416
actggaacca gcagtgacgt tggtggttat aactatgtct cc 42

<210> 417
<211> 21
<212> DNA
<213> Homo sapiens

<400> 417
gagggcagta agcggccctc a 21

<210> 418
<211> 30
<212> DNA
<213> Homo sapiens

<400> 418
agctcatata caaccaggag cactcgagtt 30

<210> 419
<211> 121
<212> PRT
<213> Homo sapiens

<400> 419
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
1 5 10 15

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

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

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

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

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

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

Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 420
<211> 111
<212> PRT
<213> Homo sapiens

<400> 420
Gln Ala Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15

Ser Ile Thr Ile Ser Cys Thr Gly Ala Ser Gly Asp Val Gly Ala Tyr
20 25 30

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

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

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80

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

Phe Ser Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 421
<211> 249
<212> PRT
<213> Homo sapiens

<400> 421
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
1 5 10 15

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

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

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

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

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

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

Arg Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly
115 120 125

Gly Gly Ser Gly Gly Gly Gly Ser Ala Gln Ala Ala Leu Thr Gln Pro
130 135 140

Ala Ser Val Ser Gly Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr
145 150 155 160

Gly Ala Ser Gly Asp Val Gly Ala Tyr Asn Phe Val Ser Trp Tyr Gln
165 170 175

Gln His Pro Gly Lys Ala Pro Lys Leu Ile Ile Tyr Asp Val Asn Lys
180 185 190

Arg Pro Ser Gly Val Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn
195 200 205

Thr Ala Ser Leu Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp
210 215 220

Tyr Tyr Cys Ser Ser Tyr Thr Ser Thr Phe Ser Val Val Phe Gly Gly
225 230 235 240

Gly Thr Lys Leu Thr Val Leu Gly Ala
245

<210> 422
<211> 5
<212> PRT
<213> Homo sapiens

<400> 422
Asp Tyr Gly Met Asn
1 5

<210> 423
<211> 17
<212> PRT
<213> Homo sapiens

<400> 423
Gly Val Asn Trp Asn Gly Gly Thr Arg Asp Tyr Ala Ala Ser Val Lys
1 5 10 15

Gly

<210> 424
<211> 12
<212> PRT
<213> Homo sapiens

<400> 424
Gly Trp Tyr Ser Gly Ser Phe Tyr Tyr Phe Gly Tyr
1 5 10

<210> 425
<211> 14
<212> PRT
<213> Homo sapiens

<400> 425
Thr Gly Ala Ser Gly Asp Val Gly Ala Tyr Asn Phe Val Ser
1 5 10

<210> 426
<211> 7
<212> PRT
<213> Homo sapiens

<400> 426
Asp Val Asn Lys Arg Pro Ser
1 5

<210> 427
<211> 10
<212> PRT
<213> Homo sapiens

<400> 427
Ser Ser Tyr Thr Ser Thr Phe Ser Val Val
1 5 10

<210> 428
<211> 363
<212> DNA
<213> Homo sapiens

<400> 428
gaggtgcagc tggtggagag cgggggaggt gtggtacggc ctgggggtc cctgagactc 60

tcctgtgcag cctctggatt cacctttgac gattatggca tgaactgggt ccgccaagct 120

ccagggaagg ggctggagtg ggtctctggt gttaattgga atggtggtac cagagattat 180

gcagcctccg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga acagtctgag agccgaggac acggccttgt atcactgtgc gagaggatgg 300

tatagtggga gcttctacta ctttggctac tggggccgag gaaccctggt caccgtctcc 360

tca 363

<210> 429
<211> 333
<212> DNA
<213> Homo sapiens

<400> 429
caggctgcgc tgactcagcc ggcctccgtg tctgggtctc ctggacagtc gatcaccatc 60

tcctgcactg gagccagcgg tgacgttggt gcttataact ttgtctcctg gtaccaacaa 120

cacccaggca aagcccccaa actcataatt tatgatgtca ataagcggcc ctcaggggtt 180

tctaatcgct tctctggctc caagtctggc aacacggcct ccctgaccat ctctgggctc 240

caggccgagg acgaggctga ttattactgc agctcatata caagcacctt ctctgtggta 300

tttggcggag ggaccaagct gaccgtccta ggt 333

<210> 430
<211> 747
<212> DNA
<213> Homo sapiens

<400> 430
gaggtgcagc tggtggagtc cgggggaggt gtggtacggc ctgggggGTC cctgagactc 60

tcctgtgcag cctctggatt cacctttgac gattatggca tgaactgggt ccgccaagct 120

ccagggaagg ggctggagtg ggtctctggt gttaattgga atggtggtac cagagattat 180

gcagcctccg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga acagtctgag agccgaggac acggccttgt atcactgtgc gagaggatgg 300

tatagtggga gcttctacta ctttggctac tggggccgag gaaccctggt caccgtctcg 360

agtggaggcg gcggttcagg cggaggtggc tctggcggtg gcggaagtgc acaggctgcg 420

ctgactcagc cggcctccgt gtctgggtct cctggacagt cgatcaccat ctcctgcact 480

ggagccagcg gtgacgttgg tgcttataac tttgtctcct ggtaccaaca acacccaggc 540

aaagccccca aactcataat ttatgatgtc aataagcggc cctcaggggt ttctaatcgc 600

ttctctggct ccaagtctgg caacacggcc tccctgacca tctctgggct ccaggccgag 660

gacgaggctg attattactg cagctcatat acaagcacct tctctgtggt atttggcgga 720

gggaccaagc tcaccgtcct aggtgcg 747

<210> 431
<211> 15
<212> DNA
<213> Homo sapiens

<400> 431
gattatggca tgaac 15

<210> 432
<211> 51
<212> DNA
<213> Homo sapiens

<400> 432
ggtgttaatt ggaatggtgg taccagagat tatgcagcct ccgtgaaggg c 51

<210> 433
<211> 36
<212> DNA
<213> Homo sapiens

<400> 433
ggatggtata gtgggagctt ctactacttt ggctac 36

<210> 434
<211> 42
<212> DNA
<213> Homo sapiens

<400> 434
actggagcca gcggtgacgt tggtgcttat aactttgtct cc 42

<210> 435
<211> 21
<212> DNA
<213> Homo sapiens

<400> 435
gatgtcaata agcggccctc à 21

<210> 436
<211> 30
<212> DNA
<213> Homo sapiens

<400> 436
agctcatata caagcacctt ctctgtggta 30

<210> 437
<211> 119
<212> PRT
<213> Homo sapiens

<400> 437

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

Gln Gly Arg Val Thr Met Thr Arg Asp Met Ser Ile Ser Thr Ala Tyr
65 70 75 80

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

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

Thr Leu Val Thr Val Ser Ser
115

<210> 438
<211> 109
<212> PRT
<213> Homo sapiens

<400> 438
Ser Ser Val Leu Thr Gln Pro Pro Ser Val Ser Val Ala Pro Gly Lys
1 5 10 15

Thr Ala Arg Ile Thr Cys Gly Gly Asn Asn Phe Arg Asn Lys Arg Val
20 25 30

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

Tyr Asp Ser Asp Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

Arg Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Arg Val Glu Ala Gly
65 70 75 80

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

Pro Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105

<210> 439
<211> 245
<212> PRT
<213> Homo sapiens

<400> 439
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

```
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asp Tyr
            20                  25                  30

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

Gly Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe
    50                  55                  60

Gln Gly Arg Val Thr Met Thr Arg Asp Met Ser Ile Ser Thr Ala Tyr
65                  70                  75                  80

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

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

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
        115                 120                 125

Ser Gly Gly Gly Gly Ser Ala Ser Ser Val Leu Thr Gln Pro Pro Ser
    130                 135                 140

Val Ser Val Ala Pro Gly Lys Thr Ala Arg Ile Thr Cys Gly Gly Asn
145                 150                 155                 160

Asn Phe Arg Asn Lys Arg Val His Trp Tyr Gln Gln Lys Pro Gly Gln
                165                 170                 175

Ala Pro Val Leu Val Ile Tyr Tyr Asp Ser Asp Arg Pro Ser Gly Ile
            180                 185                 190

Pro Glu Arg Phe Ser Gly Ser Arg Ser Gly Asn Thr Ala Thr Leu Thr
        195                 200                 205

Ile Ser Arg Val Glu Ala Gly Asp Glu Ala Asp Tyr Tyr Cys Gln Val
    210                 215                 220

Trp Asp Ser Ser Thr Asp Arg Pro Leu Phe Gly Gly Gly Thr Lys Leu
225                 230                 235                 240
```

Thr Val Leu Gly Ala
245

<210> 440
<211> 5
<212> PRT
<213> Homo sapiens

<400> 440
Asp Tyr Tyr Ile His
1 5

<210> 441
<211> 17
<212> PRT
<213> Homo sapiens

<400> 441
Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 442
<211> 10
<212> PRT
<213> Homo sapiens

<400> 442
Asp Leu Thr Gly Phe Asp Pro Phe Asp Ile
1 5 10

<210> 443
<211> 11
<212> PRT
<213> Homo sapiens

<400> 443
Gly Gly Asn Asn Phe Arg Asn Lys Arg Val His
1 5 10

<210> 444
<211> 7
<212> PRT
<213> Homo sapiens

<400> 444
Tyr Asp Ser Asp Arg Pro Ser
1 5

<210> 445
<211> 11
<212> PRT
<213> Homo sapiens

<400> 445
Gln Val Trp Asp Ser Ser Thr Asp Arg Pro Leu
1 5 10

<210> 446
<211> 357
<212> DNA
<213> Homo sapiens

<400> 446
caggtccagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgtaagg cttctggata caccttcagc gattactata ttcactgggt gcgacaggcc 120

cctggacaag ggttggagtg gatgggatgg gtcaaccctg acactggtgg cacaagatac 180

gcgcagaagt ttcagggccg ggtcacaatg accagggaca tgtccatctc cacagcctac 240

atggagctgt ccaggctgag aagcgacgac acggccgtat attactgtgc gagagatcta 300

actggatttg atccttttga tatctggggc cagggaaccc tggtcaccgt ctcctca 357

<210> 447
<211> 327
<212> DNA
<213> Homo sapiens

<400> 447
tcgtctgtgc tgactcagcc accctcagtg tcagtggccc caggaaagac ggcccgcatt 60

acctgtgggg gaaacaactt tcgaaataaa agagtacact ggtatcagca gaagccaggc 120

caggcccctg tcctggtcat ctattatgat tcagaccggc cctcagggat ccctgagcga 180

ttctctggct cccgctctgg gaacacggcc accctgacca tcagcagggt cgaggccggg 240

gatgaggccg actattactg tcaggtgtgg gatagtagta ctgatcgtcc gctgttcggc 300

ggagggacca agctgaccgt cctaggt 327

<210> 448
<211> 735
<212> DNA
<213> Homo sapiens

<400> 448
caagtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgtaagg cttctggata caccttcagc gattactata ttcactgggt gcgacaggcc 120

cctggacaag ggttggagtg gatgggatgg gtcaaccctg acactggtgg cacaagatac 180

gcgcagaagt ttcagggccg ggtcacaatg accagggaca tgtccatctc cacagcctac 240

atggagctgt ccaggctgag aagcgacgac acggccgtat attactgtgc gagagatcta 300

actggatttg atccttttga tatctggggc cagggaaccc tggtcaccgt ctcgagtgga 360

ggcggcggtt caggcggagg tggctctggc ggtggcggaa gtgcatcgtc tgtgctgact 420

cagccaccct cagtgtcagt ggccccagga aagacggccc gcattacctg tgggggaaac 480

aactttcgaa ataaaagagt acactggtat cagcagaagc caggccaggc ccctgtcctg 540

gtcatctatt atgattcaga ccggccctca gggatccctg agcgattctc tggctcccgc 600

tctgggaaca cggccaccct gaccatcagc agggtcgagg ccggggatga ggccgactat 660

tactgtcagg tgtgggatag tagtactgat cgtccgctgt tcggcggagg gaccaagctg 720

accgtcctag gtgcg 735

<210> 449
<211> 15
<212> DNA
<213> Homo sapiens

<400> 449
gattactata ttcac 15

<210> 450
<211> 51
<212> DNA
<213> Homo sapiens

<400> 450
tgggtcaacc ctgacactgg tggcacaaga tacgcgcaga agtttcaggg c 51

<210> 451
<211> 30
<212> DNA
<213> Homo sapiens

<400> 451
gatctaactg gatttgatcc ttttgatatc 30

<210> 452
<211> 33
<212> DNA
<213> Homo sapiens

<400> 452
gggggaaaca actttcgaaa taaaagagta cac 33

<210> 453
<211> 21
<212> DNA
<213> Homo sapiens

<400> 453
tatgattcag accggccctc a 21

<210> 454
<211> 33
<212> DNA
<213> Homo sapiens

<400> 454
caggtgtggg atagtagtac tgatcgtccg ctg 33

<210> 455
<211> 121
<212> PRT
<213> Homo sapiens

<400> 455

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1				5				10					15		

Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Asp	Tyr
			20				25				30				

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

Gly	Trp	Ile	Asn	Pro	Tyr	Thr	Gly	Gly	Ala	Phe	Tyr	Ala	Gln	Lys	Phe
	50					55				60					

Arg	Gly	Arg	Val	Thr	Met	Thr	Arg	Asp	Thr	Ser	Ile	Ser	Thr	Ala	Tyr
65					70					75					80

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

Ala	Arg	Glu	Pro	Glu	Lys	Phe	Asp	Phe	Trp	Gly	Gly	Asp	Asn	Trp	Gly
			100					105					110		

Arg	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser
		115				120		

<210> 456
<211> 112
<212> PRT
<213> Homo sapiens

<400> 456
Gln Ala Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

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

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

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

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser
85 90 95

Leu Ser Gly Tyr Val Phe Gly Gly Gly Thr Gln Leu Thr Val Leu Gly
100 105 110

<210> 457
<211> 250
<212> PRT
<213> Homo sapiens

<400> 457
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Tyr Thr Gly Gly Ala Phe Tyr Ala Gln Lys Phe
50 55 60

Arg Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

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

Ala Arg Glu Pro Glu Lys Phe Asp Phe Trp Gly Gly Asp Asn Trp Gly
            100                 105                 110

Arg Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Gly Ser Ala Gln Ala Val Leu Thr Gln Pro
    130                 135                 140

Pro Ser Val Ser Gly Ala Pro Gly Gln Arg Val Thr Ile Ser Cys Thr
145                 150                 155                 160

Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Gly Val His Trp Tyr Gln
                165                 170                 175

Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr Gly Asn Ser Asn
            180                 185                 190

Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr
        195                 200                 205

Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln Ala Glu Asp Glu Ala Asp
    210                 215                 220

Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser Leu Ser Gly Tyr Val Phe Gly
225                 230                 235                 240

Gly Gly Thr Gln Leu Thr Val Leu Ser Ala
                245                 250
```

<210> 458
<211> 5
<212> PRT
<213> Homo sapiens

<400> 458

```
Asp Tyr Tyr Met His
1               5
```

<210> 459
<211> 17
<212> PRT
<213> Homo sapiens

<400> 459
Trp Ile Asn Pro Tyr Thr Gly Gly Ala Phe Tyr Ala Gln Lys Phe Arg
1 5 10 15

Gly

<210> 460
<211> 12
<212> PRT
<213> Homo sapiens

<400> 460
Glu Pro Glu Lys Phe Asp Phe Trp Gly Gly Asp Asn
1 5 10

<210> 461
<211> 14
<212> PRT
<213> Homo sapiens

<400> 461
Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Gly Val His
1 5 10

<210> 462
<211> 7
<212> PRT
<213> Homo sapiens

<400> 462
Gly Asn Ser Asn Arg Pro Ser
1 5

<210> 463
<211> 11
<212> PRT
<213> Homo sapiens

<400> 463
Gln Ser Tyr Asp Ser Ser Leu Ser Gly Tyr Val
1 5 10

<210> 464
<211> 363
<212> DNA
<213> Homo sapiens

<400> 464
caggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc gactactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg ggtgggatgg atcaaccctt atactggtgg cgcattctat 180

gcacagaagt ttcggggcag ggtcacaatg accagggaca cgtccatcag cacagcctac 240

atggagctga gcagactgag atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaaaattcg atttttgggg gggtgacaac tggggccggg ggacattggt caccgtctcc 360

tca 363

<210> 465
<211> 336
<212> DNA
<213> Homo sapiens

<400> 465
caggctgtgc tgactcagcc gccgtcagtg tctggggccc cagggcagag ggtcaccatc 60

tcctgcactg ggagcagctc caacatcggg gcaggttatg gtgtacactg gtaccaacag 120

cttccaggaa cagccccaa actcctcatc tatggtaaca gcaatcggcc ctcaggggtc 180

cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

caggctgagg atgaggctga ttattactgc cagtcctatg acagcagcct gagtggttat 300

gtcttcggag gtgggaccca gctcaccgtc ctaggt 336

<210> 466
<211> 750
<212> DNA
<213> Homo sapiens

<400> 466
caggtccagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc gactactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg ggtgggatgg atcaaccctt atactggtgg cgcattctat 180

gcacagaagt ttcggggcag ggtcacaatg accagggaca cgtccatcag cacagcctac 240

atggagctga gcagactgag atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaaaattcg atttttgggg gggtgacaac tggggccggg ggacattggt caccgtctcg 360

agtggaggcg gcggttcagg cggaggtggc tctggcggtg gcggaagtgc acaggctgtg 420

ctgactcagc cgccgtcagt gtctggggcc ccagggcaga gggtcaccat ctcctgcact 480

gggagcagct ccaacatcgg ggcaggttat ggtgtacact ggtaccaaca gcttccagga 540

acagccccca aactcctcat ctatggtaac agcaatcggc cctcaggggt ccctgaccga 600

ttctctggct ccaagtctgg cacctcagcc tccctggcca tcactgggct ccaggctgag 660

gatgaggctg attattactg ccagtcctat gacagcagcc tgagtggtta tgtcttcgga 720

ggtgggaccc agctcaccgt tttaagtgcg 750

<210> 467
<211> 15
<212> DNA
<213> Homo sapiens

<400> 467
gactactata tgcac 15

<210> 468
<211> 51
<212> DNA
<213> Homo sapiens

<400> 468
tggatcaacc cttatactgg tggcgcattc tatgcacaga agtttcgggg c 51

<210> 469
<211> 36
<212> DNA
<213> Homo sapiens

<400> 469
gaacctgaaa aattcgattt ttgggggggt gacaac 36

<210> 470
<211> 42
<212> DNA
<213> Homo sapiens

<400> 470
actgggagca gctccaacat cggggcaggt tatggtgtac ac 42

<210> 471
<211> 21
<212> DNA
<213> Homo sapiens

<400> 471
ggtaacagca atcggccctc a 21

<210> 472
<211> 33
<212> DNA
<213> Homo sapiens

<400> 472
cagtcctatg acagcagcct gagtggttat gtc 33

<210> 473
<211> 119
<212> PRT
<213> Homo sapiens

<400> 473
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

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

Gly Trp Val Ser Ala Tyr Thr Gly Asn Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80

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

Ala Arg Asp Arg Gly Tyr Tyr Asp Ala Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 474
<211> 108
<212> PRT
<213> Homo sapiens

<400> 474
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 Glu Gly Ile Tyr His 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 Ala 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 Met Gly Glu Tyr Asn Ala
                85                  90                  95

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

<210> 475
<211> 242
<212> PRT
<213> Homo sapiens

<400> 475

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1               5                   10                  15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
            20                  25                  30

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

Gly Trp Val Ser Ala Tyr Thr Gly Asn Thr Asn Tyr Ala Gln Lys Phe
    50                  55                  60

Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80

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

Ala Arg Asp Arg Gly Tyr Tyr Asp Ala Phe Asp Ile Trp Gly Gln Gly
            100                 105                 110
```

```
Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
        115                 120                 125

Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser Thr
    130                 135                 140

Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser
145                 150                 155                 160

Glu Gly Ile Tyr His Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
                165                 170                 175

Ala Pro Lys Leu Leu Ile Tyr Lys Ala Ser Ser Leu Ala Ser Gly Val
            180                 185                 190

Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
        195                 200                 205

Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
    210                 215                 220

Met Gly Glu Tyr Asn Ala Thr Phe Gly Gly Gly Thr Lys Val Glu Ile
225                 230                 235                 240

Lys Arg
```

<210> 476
<211> 5
<212> PRT
<213> Homo sapiens

<400> 476

```
Ser Tyr Gly Ile Ser
1               5
```

<210> 477
<211> 17
<212> PRT
<213> Homo sapiens

<400> 477

```
Trp Val Ser Ala Tyr Thr Gly Asn Thr Asn Tyr Ala Gln Lys Phe Gln
1               5                   10                  15

Gly
```

<210> 478
<211> 10
<212> PRT
<213> Homo sapiens

<400> 478
Asp Arg Gly Tyr Tyr Asp Ala Phe Asp Ile
1 5 10

<210> 479
<211> 11
<212> PRT
<213> Homo sapiens

<400> 479
Arg Ala Ser Glu Gly Ile Tyr His Trp Leu Ala
1 5 10

<210> 480
<211> 7
<212> PRT
<213> Homo sapiens

<400> 480
Lys Ala Ser Ser Leu Ala Ser
1 5

<210> 481
<211> 9
<212> PRT
<213> Homo sapiens

<400> 481
Gln Gln Met Gly Glu Tyr Asn Ala Thr
1 5

<210> 482
<211> 357
<212> DNA
<213> Homo sapiens

<400> 482
caggtgcagc tggtgcagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggtta cacctttacc agttatggta tcagctgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggatgg gtcagcgctt acactggtaa cacaaactat 180

gcacagaagt tccagggcag agtcaccatg accacagaca catccacgag cacagcctac 240

atggaactga ggagcctgag atctgacgac acggccgtgt attactgtgc gagagatcgt 300

ggatactatg atgcttttga tatctggggc caaggcaccc tggtcaccgt ctcctca 357

<210> 483
<211> 324
<212> DNA
<213> Homo sapiens

<400> 483
gacatccaga tgacccagtc tccttccacc ctgtctgcat ctgttggaga cagagtcacc 60

atcacctgcc gggccagtga gggtatttat cactggttgg cctggtatca gcagaagcca 120

gggaaagccc ctaaactcct gatctataag gcctctagtt tagccagtgg ggtcccatca 180

aggttcagcg gcagtggatc tgggacagag ttcactctca ccatcagcag cctgcagcct 240

gatgattttg caacttatta ctgccaacaa atgggcgagt acaacgccac cttcggcgga 300

gggaccaagg tggagatcaa acgt 324

<210> 484
<211> 726
<212> DNA
<213> Homo sapiens

<400> 484
caggtgcagc tggtgcagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggtta cacctttacc agttatggta tcagctgggt gcgacaggcc 120

cctggacaag ggcttgagtg gatgggatgg gtcagcgctt acactggtaa cacaaactat 180

gcacagaagt tccagggcag agtcaccatg accacagaca catccacgag cacagcctac 240

atggaactga ggagcctgag atctgacgac acggccgtgt attactgtgc gagagatcgt 300

ggatactatg atgcttttga tatctggggc caaggcaccc tggtcaccgt ctcctcaggt 360

ggaggcggtt caggcggagg tggcagcggc ggtggcggat cggacatcca gatgacccag 420

tctccttcca ccctgtctgc atctgttgga gacagagtca ccatcacctg ccgggccagt 480

gagggtattt atcactggtt ggcctggtat cagcagaagc cagggaaagc ccctaaactc 540

ctgatctata aggcctctag tttagccagt ggggtcccat caaggttcag cggcagtgga 600

tctgggacag agttcactct caccatcagc agcctgcagc ctgatgattt tgcaacttat 660

tactgccaac aaatgggcga gtacaacgcc accttcggcg gagggaccaa ggtggagatc 720

aaacgt 726

<210> 485
<211> 15
<212> DNA
<213> Homo sapiens

<400> 485
agttatggta tcagc 15

<210> 486
<211> 51
<212> DNA
<213> Homo sapiens

<400> 486
tgggtcagcg cttacactgg taacacaaac tatgcacaga agttccaggg c 51

<210> 487
<211> 30
<212> DNA
<213> Homo sapiens

<400> 487
gatcgtggat actatgatgc ttttgatatc 30

<210> 488
<211> 33
<212> DNA
<213> Homo sapiens

<400> 488
cgggccagtg agggtattta tcactggttg gcc 33

<210> 489
<211> 21
<212> DNA
<213> Homo sapiens

<400> 489
aaggcctcta gtttagccag t 21

<210> 490
<211> 27
<212> DNA
<213> Homo sapiens

<400> 490
caacaaatgg gcgagtacaa cgccacc 27

<210> 491
<211> 121
<212> PRT
<213> Homo sapiens

<400> 491
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
1 5 10 15

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

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

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

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

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

Ala Arg Gly Trp Tyr Ser Gly Ala Ala Trp Asn Met Gly Tyr Trp Gly
100 105 110

Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 492
<211> 111
<212> PRT
<213> Homo sapiens

<400> 492
Gln Ala Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15

Ser Ile Thr Ile Ser Cys Thr Gly Ala Ser Gly Asp Val Gly Ala Tyr
20 25 30

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

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

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80

```
Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Thr Ser Thr
                85                  90                  95

Phe Ser Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100                 105                 110
```

<210> 493
<211> 248
<212> PRT
<213> Homo sapiens

<400> 493

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
1               5                  10                  15

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

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

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

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

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

Ala Arg Gly Trp Tyr Ser Gly Ala Ala Trp Asn Met Gly Tyr Trp Gly
            100                 105                 110

Arg Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Gly Gly Ser Ala Gln Ala Ala Leu Thr Gln Pro
    130                 135                 140

Ala Ser Val Ser Gly Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr
145                 150                 155                 160

Gly Ala Ser Gly Asp Val Gly Ala Tyr Asn Phe Val Ser Trp Tyr Gln
                165                 170                 175
```

```
Gln His Pro Gly Lys Ala Pro Lys Leu Ile Ile Tyr Asp Val Asn Lys
            180                 185                 190

Arg Pro Ser Gly Val Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn
        195                 200                 205

Thr Ala Ser Leu Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp
    210                 215                 220

Tyr Tyr Cys Ser Ser Tyr Thr Ser Thr Phe Ser Val Val Phe Gly Gly
225                 230                 235                 240

Gly Thr Lys Leu Thr Val Leu Gly
                245
```

<210> 494
<211> 5
<212> PRT
<213> Homo sapiens

<400> 494
Asp Tyr Gly Met Asn
1   5

<210> 495
<211> 17
<212> PRT
<213> Homo sapiens

<400> 495
Gly Val Asn Trp Asn Gly Gly Thr Arg Asp Tyr Ala Ala Ser Val Lys
1   5   10   15

Gly

<210> 496
<211> 12
<212> PRT
<213> Homo sapiens

<400> 496
Gly Trp Tyr Ser Gly Ala Ala Trp Asn Met Gly Tyr
1   5   10

<210> 497
<211> 14
<212> PRT
<213> Homo sapiens

<400> 497
Thr Gly Ala Ser Gly Asp Val Gly Ala Tyr Asn Phe Val Ser
1 5 10

<210> 498
<211> 7
<212> PRT
<213> Homo sapiens

<400> 498
Asp Val Asn Lys Arg Pro Ser
1 5

<210> 499
<211> 10
<212> PRT
<213> Homo sapiens

<400> 499
Ser Ser Tyr Thr Ser Thr Phe Ser Val Val
1 5 10

<210> 500
<211> 363
<212> DNA
<213> Homo sapiens

<400> 500
gaggtgcagc tggtggagag cgggggaggt gtggtacggc ctgggggGTC cctgagactc 60

tcctgtgcag cctctggatt cacctttgac gattatggca tgaactgggt ccgccaagct 120

ccagggaagg ggctggagtg ggtctctggt gttaattgga atggtggtac cagagattat 180

gcagcctccg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga acagtctgag agccgaggac acggccttgt atcactgtgc gagaggatgg 300

tatagtgggg ccgcgtggaa catgggctac tggggccgag gaaccctggt caccgtctcc 360

tca 363

<210> 501
<211> 333
<212> DNA
<213> Homo sapiens

<400> 501
caggctgcgc tgactcagcc ggcctccgtg tctgggtctc ctggacagtc gatcaccatc 60

tcctgcactg gagccagcgg tgacgttggt gcttataact ttgtctcctg gtaccaacaa 120

cacccaggca aagcccccaa actcataatt tatgatgtca ataagcggcc ctcaggggtt 180

tctaatcgct tctctggctc caagtctggc aacacggcct ccctgaccat ctctgggctc 240

caggccgagg acgaggctga ttattactgc agctcatata caagcacctt ctctgtggta 300

tttggcggag ggaccaagct gaccgtccta ggt 333

<210> 502
<211> 744
<212> DNA
<213> Homo sapiens

<400> 502
gaggtgcagc tggtggagag cgggggaggt gtggtacggc ctgggggggtc cctgagactc 60

tcctgtgcag cctctggatt cacctttgac gattatggca tgaactgggt ccgccaagct 120

ccagggaagg ggctggagtg ggtctctggt gttaattgga atggtggtac cagagattat 180

gcagcctccg tgaagggccg attcaccatc tccagagaca acgccaagaa ctccctgtat 240

ctgcaaatga acagtctgag agccgaggac acggccttgt atcactgtgc gagaggatgg 300

tatagtgggg ccgcgtggaa catgggctac tggggccgag gaaccctggt caccgtctcc 360

tcaggaggcg gcggttcagg cggaggtggc tctggcggtg gcggaagtgc acaggctgcg 420

ctgactcagc cggcctccgt gtctgggtct cctggacagt cgatcaccat ctcctgcact 480

ggagccagcg gtgacgttgg tgcttataac tttgtctcct ggtaccaaca acacccaggc 540

aaagcccccа aactcataat ttatgatgtc aataagcggc cctcaggggt ttctaatcgc 600

ttctctggct ccaagtctgg caacacggcc tccctgacca tctctgggct ccaggccgag 660

gacgaggctg attattactg cagctcatat acaagcacct tctctgtggt atttggcgga 720

gggaccaagc tgaccgtcct aggt 744

<210> 503
<211> 15
<212> DNA
<213> Homo sapiens

<400> 503
gattatggca tgaac 15

<210> 504
<211> 51
<212> DNA
<213> Homo sapiens

<400> 504
ggtgttaatt ggaatggtgg taccagagat tatgcagcct ccgtgaaggg c 51

<210> 505
<211> 36
<212> DNA
<213> Homo sapiens

<400> 505
ggatggtata gtggggccgc gtggaacatg ggctac 36

<210> 506
<211> 42
<212> DNA
<213> Homo sapiens

<400> 506
actggagcca gcggtgacgt tggtgcttat aactttgtct cc 42

<210> 507
<211> 21
<212> DNA
<213> Homo sapiens

<400> 507
gatgtcaata agcggccctc a 21

<210> 508
<211> 30
<212> DNA
<213> Homo sapiens

<400> 508
agctcatata caagcacctt ctctgtggta 30

<210> 509
<211> 119
<212> PRT
<213> Homo sapiens

<400> 509
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asp Tyr
20 25 30

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

Gly Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Met Ser Ile Ser Thr Ala Tyr
65 70 75 80

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

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

Thr Leu Val Thr Val Ser Ser
115

<210> 510
<211> 109
<212> PRT
<213> Homo sapiens

<400> 510
Ser Ser Val Leu Thr Gln Pro Pro Ser Val Ser Val Ala Pro Gly Lys
1 5 10 15

Thr Ala Arg Ile Thr Cys Gly Gly Asn Asn Phe Arg Asn Lys Arg Val
20 25 30

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

Tyr Asp Ser Asp Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

Arg Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Arg Val Glu Ala Gly
65 70 75 80

Asp Glu Ala Asp Tyr Tyr Cys Gln Val Trp Asp Leu Phe Asn Asp Asn
85 90 95

Gly Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105

<210> 511
<211> 244
<212> PRT
<213> Homo sapiens

<400> 511

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1               5                  10                  15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asp Tyr
            20                  25                  30

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

Gly Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe
    50                  55                  60

Gln Gly Arg Val Thr Met Thr Arg Asp Met Ser Ile Ser Thr Ala Tyr
65                  70                  75                  80

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

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

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Ser Ser Gly Gly Gly Gly
        115                 120                 125

Ser Gly Gly Gly Gly Ser Ala Ser Ser Val Leu Thr Gln Pro Pro Ser
    130                 135                 140

Val Ser Val Ala Pro Gly Lys Thr Ala Arg Ile Thr Cys Gly Gly Asn
145                 150                 155                 160

Asn Phe Arg Asn Lys Arg Val His Trp Tyr Gln Gln Lys Pro Gly Gln
                165                 170                 175

Ala Pro Val Leu Val Ile Tyr Tyr Asp Ser Asp Arg Pro Ser Gly Ile
            180                 185                 190

Pro Glu Arg Phe Ser Gly Ser Arg Ser Gly Asn Thr Ala Thr Leu Thr
        195                 200                 205
```

Ile Ser Arg Val Glu Ala Gly Asp Glu Ala Asp Tyr Tyr Cys Gln Val
210 215 220

Trp Asp Leu Phe Asn Asp Asn Gly Val Phe Gly Gly Gly Thr Lys Leu
225 230 235 240

Thr Val Leu Gly

<210> 512
<211> 5
<212> PRT
<213> Homo sapiens

<400> 512
Asp Tyr Tyr Ile His
1 5

<210> 513
<211> 17
<212> PRT
<213> Homo sapiens

<400> 513
Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 514
<211> 10
<212> PRT
<213> Homo sapiens

<400> 514
Asp Leu Thr Gly Phe Asp Pro Phe Asp Ile
1 5 10

<210> 515
<211> 11
<212> PRT
<213> Homo sapiens

<400> 515
Gly Gly Asn Asn Phe Arg Asn Lys Arg Val His
1 5 10

<210> 516
<211> 7
<212> PRT
<213> Homo sapiens

<400> 516
Tyr Asp Ser Asp Arg Pro Ser
1 5

<210> 517
<211> 11
<212> PRT
<213> Homo sapiens

<400> 517
Gln Val Trp Asp Leu Phe Asn Asp Asn Gly Val
1 5 10

<210> 518
<211> 357
<212> DNA
<213> Homo sapiens

<400> 518
caggtccagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgtaagg cttctggata caccttcagc gattactata ttcactgggt gcgacaggcc 120

cctggacaag ggttggagtg gatgggatgg gtcaaccctg acactggtgg cacaagatac 180

gcgcagaagt ttcagggccg ggtcacaatg accagggaca tgtccatctc cacagcctac 240

atggagctgt ccaggctgag aagcgacgac acggccgtat attactgtgc gagagatcta 300

actggatttg atccttttga tatctggggc cagggaaccc tggtcaccgt ctcctca 357

<210> 519
<211> 327
<212> DNA
<213> Homo sapiens

<400> 519
tcgtctgtgc tgactcagcc accctcagtg tcagtggccc caggaaagac ggcccgcatt 60

acctgtgggg gaaacaactt tcgaaataaa agagtacact ggtatcagca gaagccaggc 120

caggcccctg tcctggtcat ctattatgat tcagaccggc cctcagggat ccctgagcga 180

ttctctggct cccgctctgg gaacacggcc accctgacca tcagcagggt cgaggccggg 240

gatgaggccg actattactg tcaggtgtgg gatctcttca acgacaacgg cgtgttcggc 300

ggagggacca agctgaccgt cctaggt 327

<210> 520
<211> 732
<212> DNA
<213> Homo sapiens

<400> 520
caggtccagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgtaagg cttctggata caccttcagc gattactata ttcactgggt gcgacaggcc 120

cctggacaag ggttggagtg gatgggatgg gtcaaccctg acactggtgg cacaagatac 180

gcgcagaagt ttcagggccg ggtcacaatg accagggaca tgtccatctc cacagcctac 240

atggagctgt ccaggctgag aagcgacgac acggccgtat attactgtgc gagagatcta 300

actggatttg atccttttga tatctggggc cagggaaccc tggtcaccgt ctcctcagga 360

ggcggcagtt caggtggagg tggctctggc ggtggcggaa gtgcatcgtc tgtgctgact 420

cagccaccct cagtgtcagt ggccccagga aagacggccc gcattacctg tgggggaaac 480

aactttcgaa ataaaagagt acactggtat cagcagaagc caggccaggc ccctgtcctg 540

gtcatctatt atgattcaga ccggccctca gggatccctg agcgattctc tggctcccgc 600

tctgggaaca cggccaccct gaccatcagc agggtcgagg ccggggatga ggccgactat 660

tactgtcagg tgtgggatct cttcaacgac aacggcgtgt tcggcggagg gaccaagctg 720

accgtcctag gt 732

<210> 521
<211> 15
<212> DNA
<213> Homo sapiens

<400> 521
gattactata ttcac 15

<210> 522
<211> 51
<212> DNA
<213> Homo sapiens

<400> 522
tgggtcaacc ctgacactgg tggcacaaga tacgcgcaga agtttcaggg c 51

<210> 523
<211> 30
<212> DNA
<213> Homo sapiens

<400> 523
gatctaactg gatttgatcc ttttgatatc 30

<210> 524
<211> 33
<212> DNA
<213> Homo sapiens

<400> 524
gggggaaaca actttcgaaa taaaagagta cac 33

<210> 525
<211> 21
<212> DNA
<213> Homo sapiens

<400> 525
tatgattcag accggccctc a 21

<210> 526
<211> 33
<212> DNA
<213> Homo sapiens

<400> 526
caggtgtggg atctcttcaa cgacaacggc gtg 33

<210> 527
<211> 119
<212> PRT
<213> Homo sapiens

<400> 527

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

```
Ala Arg Asp Leu Thr Gly Phe Asp Pro Phe Asp Ile Trp Gly Gln Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ser
        115
```

<210> 528
<211> 109
<212> PRT
<213> Homo sapiens

<400> 528

```
Ser Ser Val Leu Thr Gln Pro Pro Ser Val Ser Val Ala Pro Gly Lys
1               5                   10                  15

Thr Ala Arg Ile Thr Cys Gly Gly Asn Asn Phe Arg Asn Lys Arg Val
            20                  25                  30

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

Tyr Asp Ser Asp Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
    50                  55                  60

Arg Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Arg Val Glu Ala Gly
65                  70                  75                  80

Asp Glu Ala Asp Tyr Tyr Cys Gln Val Trp Asp Phe Leu Thr Asp Ser
                85                  90                  95

Gly Ser Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100                 105
```

<210> 529
<211> 244
<212> PRT
<213> Homo sapiens

<400> 529

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1               5                   10                  15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asp Tyr
            20                  25                  30
```

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

Gly Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe
    50                  55                  60

Gln Gly Arg Val Thr Met Thr Arg Asp Met Ser Ile Ser Thr Ala Tyr
65                  70                  75                  80

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

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

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
        115                 120                 125

Ser Gly Gly Gly Gly Ser Ala Ser Ser Val Leu Thr Gln Pro Pro Ser
    130                 135                 140

Val Ser Val Ala Pro Gly Lys Thr Ala Arg Ile Thr Cys Gly Gly Asn
145                 150                 155                 160

Asn Phe Arg Asn Lys Arg Val His Trp Tyr Gln Gln Lys Pro Gly Gln
                165                 170                 175

Ala Pro Val Leu Val Ile Tyr Tyr Asp Ser Asp Arg Pro Ser Gly Ile
            180                 185                 190

Pro Glu Arg Phe Ser Gly Ser Arg Ser Gly Asn Thr Ala Thr Leu Thr
        195                 200                 205

Ile Ser Arg Val Glu Ala Gly Asp Glu Ala Asp Tyr Tyr Cys Gln Val
    210                 215                 220

Trp Asp Phe Leu Thr Asp Ser Gly Ser Phe Gly Gly Gly Thr Lys Leu
225                 230                 235                 240

Thr Val Leu Gly
```

<210> 530
<211> 5
<212> PRT
<213> Homo sapiens

<400> 530
Asp Tyr Tyr Ile His
1 5

<210> 531
<211> 17
<212> PRT
<213> Homo sapiens

<400> 531
Trp Val Asn Pro Asp Thr Gly Gly Thr Arg Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 532
<211> 10
<212> PRT
<213> Homo sapiens

<400> 532
Asp Leu Thr Gly Phe Asp Pro Phe Asp Ile
1 5 10

<210> 533
<211> 11
<212> PRT
<213> Homo sapiens

<400> 533
Gly Gly Asn Asn Phe Arg Asn Lys Arg Val His
1 5 10

<210> 534
<211> 7
<212> PRT
<213> Homo sapiens

<400> 534
Tyr Asp Ser Asp Arg Pro Ser
1 5

<210> 535
<211> 11
<212> PRT
<213> Homo sapiens

<400> 535
Gln Val Trp Asp Phe Leu Thr Asp Ser Gly Ser
1 5 10

<210> 536
<211> 357
<212> DNA
<213> Homo sapiens

<400> 536
caggtccagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgtaagg cttctggata caccttcagc gattactata ttcactgggt gcgacaggcc 120

cctggacaag ggttggagtg gatgggatgg gtcaaccctg acactggtgg cacaagatac 180

gcgcagaagt ttcagggccg ggtcacaatg accagggaca tgtccatctc cacagcctac 240

atggagctgt ccaggctgag aagcgacgac acggccgtat attactgtgc gagagatcta 300

actggatttg atccttttga tatctggggc cagggaaccc tggtcaccgt ctcctca 357

<210> 537
<211> 327
<212> DNA
<213> Homo sapiens

<400> 537
tcgtctgtgc tgactcagcc accctcagtg tcagtggccc caggaaagac ggcccgcatt 60

acctgtgggg gaaacaactt tcgaaataaa agagtacact ggtatcagca gaagccaggc 120

caggcccctg tcctggtcat ctattatgat tcagaccggc cctcagggat ccctgagcga 180

ttctctggct cccgctctgg gaacacggcc accctgacca tcagcagggt cgaggccggg 240

gatgaggccg actattactg tcaggtgtgg gatttcctca ccgactcggg gtcgttcggc 300

ggagggacca agctgaccgt cctaggt 327

<210> 538
<211> 732
<212> DNA
<213> Homo sapiens

<400> 538
caggtccagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgtaagg cttctggata caccttcagc gattactata ttcactgggt gcgacaggcc 120

cctggacaag ggttggagtg gatgggatgg gtcaaccctg acactggtgg cacaagatac 180

gcgcagaagt ttcagggccg ggtcacaatg accagggaca tgtccatctc cacagcctac 240

atggagctgt ccaggctgag aagcgacgac acggccgtat attactgtgc gagagatcta 300

actggatttg atccttttga tatctggggc cagggaaccc tggtcaccgt ctcctcagga 360

ggcggcggtt caggcggagg tggctctggc ggtggcggaa gtgcatcgtc tgtgctgact 420

cagccaccct cagtgtcagt ggccccagga aagacggccc gcattacctg tgggggaaac 480

aactttcgaa ataaaagagt acactggtat cagcagaagc caggccaggc ccctgtcctg 540

gtcatctatt atgattcaga ccggccctca gggatccctg agcgattctc tggctcccgc 600

tctgggaaca cggccaccct gaccatcagc agggtcgagg ccggggatga ggccgactat 660

tactgtcagg tgtgggattt cctcaccgac tcggggtcgt tcggcggagg gaccaagctg 720

accgtcctag gt 732

<210> 539
<211> 15
<212> DNA
<213> Homo sapiens

<400> 539
gattactata ttcac 15

<210> 540
<211> 51
<212> DNA
<213> Homo sapiens

<400> 540
tgggtcaacc ctgacactgg tggcacaaga tacgcgcaga agtttcaggg c 51

<210> 541
<211> 30
<212> DNA
<213> Homo sapiens

<400> 541
gatctaactg gatttgatcc ttttgatatc 30

<210> 542
<211> 33
<212> DNA
<213> Homo sapiens

<400> 542
gggggaaaca actttcgaaa taaaagagta cac 33

<210> 543
<211> 21
<212> DNA
<213> Homo sapiens

<400> 543
tatgattcag accggccctc a 21

<210> 544
<211> 33
<212> DNA
<213> Homo sapiens

<400> 544
caggtgtggg atttcctcac cgactcgggg tcg 33

<210> 545
<211> 121
<212> PRT
<213> Homo sapiens

<400> 545

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

<210> 546
<211> 112
<212> PRT
<213> Homo sapiens

<400> 546
Gln Ala Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

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

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

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

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Tyr His Trp Asp Lys Glu
85 90 95

Gln Ser Gly Tyr Val Phe Gly Gly Gly Thr Gln Leu Thr Val Leu Gly
100 105 110

<210> 547
<211> 249
<212> PRT
<213> Homo sapiens

<400> 547
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Tyr Thr Gly Gly Ala Phe Tyr Ala Gln Lys Phe
50 55 60

Arg Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

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

Ala Arg Glu Pro Glu Arg Phe Gly Asp Ser Thr Gly Gln Val Trp Gly
            100                 105                 110

Arg Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Ser Arg Ser Ala Gln Ala Val Leu Thr Gln Pro
    130                 135                 140

Pro Ser Val Ser Gly Ala Pro Gly Gln Arg Val Thr Ile Ser Cys Thr
145                 150                 155                 160

Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Gly Val His Trp Tyr Gln
                165                 170                 175

Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr Gly Asn Ser Asn
            180                 185                 190

Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr
        195                 200                 205

Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln Ala Glu Asp Glu Ala Asp
    210                 215                 220

Tyr Tyr Cys Tyr His Trp Asp Lys Glu Gln Ser Gly Tyr Val Phe Gly
225                 230                 235                 240

Gly Gly Thr Gln Leu Thr Val Leu Gly
                245
```

<210> 548
<211> 5
<212> PRT
<213> Homo sapiens

<400> 548
Asp Tyr Tyr Met His
1   5

<210> 549
<211> 17
<212> PRT
<213> Homo sapiens

<400> 549
Trp Ile Asn Pro Tyr Thr Gly Gly Ala Phe Tyr Ala Gln Lys Phe Arg
1 5 10 15

Gly

<210> 550
<211> 12
<212> PRT
<213> Homo sapiens

<400> 550
Glu Pro Glu Arg Phe Gly Asp Ser Thr Gly Gln Val
1 5 10

<210> 551
<211> 14
<212> PRT
<213> Homo sapiens

<400> 551
Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Gly Val His
1 5 10

<210> 552
<211> 7
<212> PRT
<213> Homo sapiens

<400> 552
Gly Asn Ser Asn Arg Pro Ser
1 5

<210> 553
<211> 11
<212> PRT
<213> Homo sapiens

<400> 553
Tyr His Trp Asp Lys Glu Gln Ser Gly Tyr Val
1 5 10

<210> 554
<211> 363
<212> DNA
<213> Homo sapiens

<400> 554
caggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc gactactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg ggtgggatgg atcaaccctt atactggtgg cgcattctat 180

gcacagaagt ttcggggcag ggtcacaatg accagggaca cgtccatcag cacagcctac 240

atggagctga gcagactgag atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaagattcg gcgactccac ggggcaggtc tggggccggg ggacattggt caccgtctcc 360

tca 363

<210> 555
<211> 336
<212> DNA
<213> Homo sapiens

<400> 555
caggctgtgc tgactcagcc gccgtcagtg tctggggccc cagggcagag ggtcaccatc 60

tcctgcactg ggagcagctc caacatcggg gcaggttatg gtgtacactg gtaccaacag 120

cttccaggaa cagccccccaa actcctcatc tatggtaaca gcaatcggcc ctcaggggtc 180

cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

caggctgagg atgaggctga ttattactgc taccactggg acaaggagca gagtggttat 300

gtcttcggag gtgggaccca gctcaccgtc ctaggt 336

<210> 556
<211> 747
<212> DNA
<213> Homo sapiens

<400> 556
caggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc gactactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg ggtgggatgg atcaaccctt atactggtgg cgcattctat 180

gcacagaagt ttcggggcag ggtcacaatg accagggaca cgtccatcag cacagcctac 240

atggagctga gcagactgag atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaagattcg gcgactccac ggggcaggtc tggggccggg ggacattggt caccgtctcc 360

tcaggggggcg gcggttcagg cggaggtggc tctggcggta gcagaagtgc acaggctgtg 420

ctgactcagc cgccgtcagt gtctggggcc ccagggcaga gggtcaccat ctcctgcact 480

gggagcagct ccaacatcgg ggcaggttat ggtgtacact ggtaccaaca gcttccagga 540

acagccccca aactcctcat ctatggtaac agcaatcggc cctcaggggt ccctgaccga 600

ttctctggct ccaagtctgg cacctcagcc tccctggcca tcactgggct ccaggctgag 660

gatgaggctg attattactg ctaccactgg gacaaggagc agagtggtta tgtcttcgga 720

ggtgggaccc agctcaccgt cctaggt 747

<210> 557
<211> 15
<212> DNA
<213> Homo sapiens

<400> 557
gactactata tgcac 15

<210> 558
<211> 51
<212> DNA
<213> Homo sapiens

<400> 558
tggatcaacc cttatactgg tggcgcattc tatgcacaga agtttcgggg c 51

<210> 559
<211> 36
<212> DNA
<213> Homo sapiens

<400> 559
gaacctgaaa gattcggcga ctccacgggg caggtc 36

<210> 560
<211> 42
<212> DNA
<213> Homo sapiens

<400> 560
actgggagca gctccaacat cggggcaggt tatggtgtac ac 42

<210> 561
<211> 21
<212> DNA
<213> Homo sapiens

<400> 561
ggtaacagca atcggccctc a 21

<210> 562
<211> 33
<212> DNA
<213> Homo sapiens

<400> 562
taccactggg acaaggagca gagtggttat gtc 33

<210> 563
<211> 121
<212> PRT
<213> Homo sapiens

<400> 563
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Tyr Thr Gly Ser Ala Phe Tyr Ala Gln Lys Phe
50 55 60

Arg Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

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

Ala Arg Glu Pro Glu Lys Phe Gly Glu Ser Ser Gly Gln Leu Trp Gly
100 105 110

Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 564
<211> 112
<212> PRT
<213> Homo sapiens

<400> 564
Gln Ala Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

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

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

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

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Gly
85 90 95

Leu Ser Gly Tyr Val Phe Gly Gly Gly Thr Gln Leu Thr Val Leu Gly
100 105 110

<210> 565
<211> 249
<212> PRT
<213> Homo sapiens

<400> 565
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30

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

Gly Trp Ile Asn Pro Tyr Thr Gly Ser Ala Phe Tyr Ala Gln Lys Phe
50 55 60

Arg Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

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

Ala Arg Glu Pro Glu Lys Phe Gly Glu Ser Ser Gly Gln Leu Trp Gly
100 105 110

```
Arg Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Ser Gly Ser Ala Gln Ala Val Leu Thr Gln Pro
    130                 135                 140

Pro Ser Val Ser Gly Ala Pro Gly Gln Arg Val Thr Ile Ser Cys Thr
145                 150                 155                 160

Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Gly Val His Trp Tyr Gln
                165                 170                 175

Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr Gly Asp Ser Asn
            180                 185                 190

Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr
        195                 200                 205

Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln Ala Glu Asp Glu Ala Asp
    210                 215                 220

Tyr Tyr Cys Gln Ser Tyr Asp Ser Gly Leu Ser Gly Tyr Val Phe Gly
225                 230                 235                 240

Gly Gly Thr Gln Leu Thr Val Leu Gly
                245
```

<210> 566
<211> 5
<212> PRT
<213> Homo sapiens

<400> 566
Asp Tyr Tyr Met His
1   5

<210> 567
<211> 17
<212> PRT
<213> Homo sapiens

<400> 567
Trp Ile Asn Pro Tyr Thr Gly Ser Ala Phe Tyr Ala Gln Lys Phe Arg
1   5   10   15

Gly

<210> 568
<211> 12
<212> PRT
<213> Homo sapiens

<400> 568
Glu Pro Glu Lys Phe Gly Glu Ser Ser Gly Gln Leu
1 5 10

<210> 569
<211> 14
<212> PRT
<213> Homo sapiens

<400> 569
Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Gly Val His
1 5 10

<210> 570
<211> 7
<212> PRT
<213> Homo sapiens

<400> 570
Gly Asp Ser Asn Arg Pro Ser
1 5

<210> 571
<211> 11
<212> PRT
<213> Homo sapiens

<400> 571
Gln Ser Tyr Asp Ser Gly Leu Ser Gly Tyr Val
1 5 10

<210> 572
<211> 363
<212> DNA
<213> Homo sapiens

<400> 572
caggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc gactactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg ggtgggatgg atcaaccctt atactggtag cgctttctat 180

gcacagaagt ttcggggcag ggtcacaatg accagggaca cgtccatcag cacagcctac 240

atggagctga gcagactgag atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaaaattcg gcgagtccag cggccagttg tggggccggg ggacattggt caccgtctcc 360

tca 363

<210> 573
<211> 336
<212> DNA
<213> Homo sapiens

<400> 573
caggctgtgc tgactcagcc gccgtcagtg tctggggccc cagggcagag ggtcaccatc 60

tcctgcactg ggagcagctc caacatcggg gcaggttatg gtgtacactg gtaccaacag 120

cttccaggaa cagccccaa actcctcatc tatggtgaca gcaatcggcc ctcaggggtc 180

cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

caggctgagg atgaggctga ttattactgc cagtcctatg acagcggcct gagtggttat 300

gtcttcggag gtgggaccca gctcaccgtc ctaggt 336

<210> 574
<211> 747
<212> DNA
<213> Homo sapiens

<400> 574
caggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc gactactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg ggtgggatgg atcaaccctt atactggtag cgctttctat 180

gcacagaagt tcggggcag ggtcacaatg accagggaca cgtccatcag cacagcctac 240

atggagctga gcagactgag atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaaaattcg gcgagtccag cggccagttg tggggccggg ggacattggt caccgtctcc 360

tcaggaggcg gcggttcagg cggaggtggc tctggcggta gcggaagtgc acaggctgtg 420

ctgactcagc cgccgtcagt gtctggggcc ccagggcaga gggtcaccat ctcctgcact 480

gggagcagct ccaacatcgg ggcaggttat ggtgtacact ggtaccaaca gcttccagga 540

acagccccca aactcctcat ctatggtgac agcaatcggc cctcaggggt ccctgaccga 600

ttctctggct ccaagtctgg cacctcagcc tccctggcca tcactgggct ccaggctgag 660

gatgaggctg attattactg ccagtcctat gacagcggcc tgagtggtta tgtcttcgga 720

ggtgggaccc agctcaccgt cctaggt 747

<210> 575
<211> 15
<212> DNA
<213> Homo sapiens

<400> 575
gactactata tgcac 15

<210> 576
<211> 51
<212> DNA
<213> Homo sapiens

<400> 576
tggatcaacc cttatactgg tagcgctttc tatgcacaga agtttcgggg c 51

<210> 577
<211> 36
<212> DNA
<213> Homo sapiens

<400> 577
gaacctgaaa aattcggcga gtccagcggc cagttg 36

<210> 578
<211> 42
<212> DNA
<213> Homo sapiens

<400> 578
actgggagca gctccaacat cggggcaggt tatggtgtac ac 42

<210> 579
<211> 21
<212> DNA
<213> Homo sapiens

<400> 579
ggtgacagca atcggccctc a 21

<210> 580
<211> 33
<212> DNA
<213> Homo sapiens

<400> 580
cagtcctatg acagcggcct gagtggttat gtc 33

<210> 581
<211> 121
<212> PRT
<213> Homo sapiens

<400> 581
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr His Tyr
20 25 30

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

Gly Trp Ile Asn Pro Tyr Thr Gly Gly Ala Phe Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

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

Ala Arg Glu Pro Glu Lys Phe Asp Ser Pro Asn Ala Glu Ile Trp Gly
100 105 110

Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 582
<211> 112
<212> PRT
<213> Homo sapiens

<400> 582
Gln Ala Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1 5 10 15

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

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

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

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser
85 90 95

Leu Ser Gly Tyr Val Phe Gly Gly Gly Thr Gln Leu Thr Val Leu Gly
100 105 110

<210> 583
<211> 249
<212> PRT
<213> Homo sapiens

<400> 583
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr His Tyr
20 25 30

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

Gly Trp Ile Asn Pro Tyr Thr Gly Gly Ala Phe Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

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

Ala Arg Glu Pro Glu Lys Phe Asp Ser Pro Asn Ala Glu Ile Trp Gly
100 105 110

Arg Gly Thr Leu Val Thr Val Ser Ser Glu Gly Gly Gly Ser Gly Gly
115 120 125

Gly Gly Ser Gly Gly Ser Gly Ser Ala Gln Ala Val Leu Thr Gln Pro
130 135 140

Pro Ser Val Ser Gly Ala Pro Gly Gln Arg Val Thr Ile Ser Cys Thr
145 150 155 160

Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Gly Val His Trp Tyr Gln
165 170 175

```
Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr Gly Asn Ser Asn
            180                 185                 190

Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr
        195                 200                 205

Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln Ala Glu Asp Glu Ala Asp
    210                 215                 220

Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser Leu Ser Gly Tyr Val Phe Gly
225                 230                 235                 240

Gly Gly Thr Gln Leu Thr Val Leu Gly
                245
```

<210> 584
<211> 5
<212> PRT
<213> Homo sapiens

<400> 584
His Tyr Tyr Met His
1   5

<210> 585
<211> 17
<212> PRT
<213> Homo sapiens

<400> 585
Trp Ile Asn Pro Tyr Thr Gly Gly Ala Phe Tyr Ala Gln Lys Phe Gln
1   5   10   15

Gly

<210> 586
<211> 12
<212> PRT
<213> Homo sapiens

<400> 586
Glu Pro Glu Lys Phe Asp Ser Pro Asn Ala Glu Ile
1   5   10

<210> 587
<211> 14
<212> PRT
<213> Homo sapiens

<400> 587
Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Gly Val His
1 5 10

<210> 588
<211> 7
<212> PRT
<213> Homo sapiens

<400> 588
Gly Asn Ser Asn Arg Pro Ser
1 5

<210> 589
<211> 11
<212> PRT
<213> Homo sapiens

<400> 589
Gln Ser Tyr Asp Ser Ser Leu Ser Gly Tyr Val
1 5 10

<210> 590
<211> 363
<212> DNA
<213> Homo sapiens

<400> 590
caggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc cactactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg ggtgggatgg atcaaccctt atactggtgg cgcattctat 180

gcacagaagt ttcagggcag ggtcacaatg accagggaca cgtccatcag cacagcctac 240

atggagctga gcagactgag atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaaaattcg actcgccgaa cgccgagatc tggggccggg ggacattggt caccgtctcc 360

tca 363

<210> 591
<211> 336
<212> DNA
<213> Homo sapiens

<400> 591
caggctgtgc tgactcagcc gccgtcagtg tctggggccc cagggcagag ggtcaccatc 60

tcctgcactg ggagcagctc caacatcggg gcaggttatg gtgtacactg gtaccaacag 120

cttccaggaa cagcccccaa actcctcatc tatggtaaca gcaatcggcc ctcaggggtc 180

cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

caggctgagg atgaggctga ttattactgc cagtcctatg acagcagcct gagtggttat 300

gtcttcggag gtgggaccca gctcaccgtc ctaggt 336

<210> 592
<211> 747
<212> DNA
<213> Homo sapiens

<400> 592
caggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc cactactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg ggtgggatgg atcaaccctt atactggtgg cgcattctat 180

gcacagaagt ttcagggcag ggtcacaatg accagggaca cgtccatcag cacagcctac 240

atggagctga gcagactgag atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaaaattcg actcgccgaa cgccgagatc tggggccggg ggacattggt caccgtctcc 360

tcagaaggcg gcggttcagg cggaggtggc tctggcggta gcggaagtgc acaggctgtg 420

ctgactcagc cgccgtcagt gtctggggcc ccagggcaga gggtcaccat ctcctgcact 480

gggagcagct ccaacatcgg ggcaggttat ggtgtacact ggtaccaaca gcttccagga 540

acagccccca aactcctcat ctatggtaac agcaatcggc cctcaggggt ccctgaccga 600

ttctctggct ccaagtctgg cacctcagcc tccctggcca tcactgggct ccaggctgag 660

gatgaggctg attattactg ccagtcctat gacagcagcc tgagtggtta tgtcttcgga 720

ggtgggaccc agctcaccgt cctaggt 747

<210> 593
<211> 15
<212> DNA
<213> Homo sapiens

<400> 593
cactactata tgcac 15

<210> 594
<211> 51
<212> DNA
<213> Homo sapiens

<400> 594
tggatcaacc cttatactgg tggcgcattc tatgcacaga agtttcaggg c 51

<210> 595
<211> 36
<212> DNA
<213> Homo sapiens

<400> 595
gaacctgaaa aattcgactc gccgaacgcc gagatc 36

<210> 596
<211> 42
<212> DNA
<213> Homo sapiens

<400> 596
actgggagca gctccaacat cggggcaggt tatggtgtac ac 42

<210> 597
<211> 21
<212> DNA
<213> Homo sapiens

<400> 597
ggtaacagca atcggccctc a 21

<210> 598
<211> 33
<212> DNA
<213> Homo sapiens

<400> 598
cagtcctatg acagcagcct gagtggttat gtc 33

<210> 599
<211> 121
<212> PRT
<213> Homo sapiens

<400> 599
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

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

```
Gly Trp Ile Asn Pro Tyr Thr Gly Ser Ala Phe Tyr Ala Gln Lys Phe
    50                  55                  60

Arg Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65                  70                  75                  80

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

Ala Arg Glu Pro Glu Lys Phe Asp Ser Asp Asp Ser Asp Val Trp Gly
            100                 105                 110

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

<210> 600
<211> 112
<212> PRT
<213> Homo sapiens

<400> 600

```
Gln Ala Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln
1               5                   10                  15

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

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

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

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
65                  70                  75                  80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Asn Ser
                85                  90                  95

Leu Ser Gly Tyr Val Phe Gly Gly Gly Thr Gln Leu Thr Val Leu Gly
            100                 105                 110
```

<210> 601
<211> 249
<212> PRT
<213> Homo sapiens

<400> 601

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1               5                  10                  15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
            20                  25                  30

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

Gly Trp Ile Asn Pro Tyr Thr Gly Ser Ala Phe Tyr Ala Gln Lys Phe
    50                  55                  60

Arg Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65                  70                  75                  80

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

Ala Arg Glu Pro Glu Lys Phe Asp Ser Asp Asp Ser Asp Val Trp Gly
            100                 105                 110

Arg Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Ser Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Ser Gly Ser Ala Gln Ala Val Leu Thr Gln Pro
    130                 135                 140

Pro Ser Val Ser Gly Ala Pro Gly Gln Arg Val Thr Ile Ser Cys Thr
145                 150                 155                 160

Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Gly Val His Trp Tyr Gln
                165                 170                 175

Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr Gly Asp Ser Asn
            180                 185                 190

Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr
        195                 200                 205
```

Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln Ala Glu Asp Glu Ala Asp
210 215 220

Tyr Tyr Cys Gln Ser Tyr Asp Asn Ser Leu Ser Gly Tyr Val Phe Gly
225 230 235 240

Gly Gly Thr Gln Leu Thr Val Leu Gly
245

<210> 602
<211> 5
<212> PRT
<213> Homo sapiens

<400> 602
Asn Tyr Tyr Met His
1 5

<210> 603
<211> 17
<212> PRT
<213> Homo sapiens

<400> 603
Trp Ile Asn Pro Tyr Thr Gly Ser Ala Phe Tyr Ala Gln Lys Phe Arg
1 5 10 15

Gly

<210> 604
<211> 12
<212> PRT
<213> Homo sapiens

<400> 604
Glu Pro Glu Lys Phe Asp Ser Asp Asp Ser Asp Val
1 5 10

<210> 605
<211> 14
<212> PRT
<213> Homo sapiens

<400> 605
Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr Gly Val His
1 5 10

<210> 606
<211> 7
<212> PRT
<213> Homo sapiens

<400> 606
Gly Asp Ser Asn Arg Pro Ser
1 5

<210> 607
<211> 11
<212> PRT
<213> Homo sapiens

<400> 607
Gln Ser Tyr Asp Asn Ser Leu Ser Gly Tyr Val
1 5 10

<210> 608
<211> 363
<212> DNA
<213> Homo sapiens

<400> 608
caggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc aactactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg ggtgggatgg atcaaccctt atactggtag cgcattctat 180

gcacagaagt ttcggggcag ggtcacaatg accagggaca cgtccatcag cacagcctac 240

atggagctga gcagactgag atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaaaattcg actccgacga ctccgacgtc tggggccgcg ggacattggt caccgtctcc 360

tca 363

<210> 609
<211> 336
<212> DNA
<213> Homo sapiens

<400> 609
caggctgtgc tgactcagcc gccgtcagtg tctggggccc agggcagag ggtcaccatc 60

tcctgcactg ggagcagctc caacatcggg gcaggttatg gtgtacactg gtaccaacag 120

cttccaggaa cagccccaa actcctcatc tatggtgaca gcaatcggcc ctcaggggtc 180

cctgaccgat tctctggctc caagtctggc acctcagcct ccctggccat cactgggctc 240

caggctgagg atgaggctga ttattactgc cagtcctatg acaacagcct gagcggttat 300

gtcttcggag gtgggaccca gctcaccgtc ctaggt 336

<210> 610
<211> 747
<212> DNA
<213> Homo sapiens

<400> 610
caggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60

tcctgcaagg cttctggata caccttcacc aactactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagtg ggtgggatgg atcaaccctt atactggtag cgcattctat 180

gcacagaagt ttcggggcag ggtcacaatg accagggaca cgtccatcag cacagcctac 240

atggagctga gcagactgag atctgacgac acggccgtgt attattgtgc gagagaacct 300

gaaaaattcg actccgacga ctccgacgtc tggggccgcg ggacattggt caccgtctcc 360

tcaggaggcg gcagttcagg cggaggtggc tctggcggta gcggaagtgc acaggctgtg 420

ctgactcagc cgccgtcagt gtctggggcc ccagggcaga gggtcaccat ctcctgcact 480

gggagcagct ccaacatcgg ggcaggttat ggtgtacact ggtaccaaca gcttccagga 540

acagccccca aactcctcat ctatggtgac agcaatcggc cctcaggggt ccctgaccga 600

ttctctggct ccaagtctgg cacctcagcc tccctggcca tcactgggct ccaggctgag 660

gatgaggctg attattactg ccagtcctat gacaacagcc tgagcggtta tgtcttcgga 720

ggtgggaccc agctcaccgt cctaggt 747

<210> 611
<211> 15
<212> DNA
<213> Homo sapiens

<400> 611
aactactata tgcac 15

<210> 612
<211> 51
<212> DNA
<213> Homo sapiens

<400> 612
tggatcaacc cttatactgg tagcgcattc tatgcacaga agtttcgggg c 51

<210> 613
<211> 36
<212> DNA
<213> Homo sapiens

<400> 613
gaacctgaaa aattcgactc cgacgactcc gacgtc 36

<210> 614
<211> 42
<212> DNA
<213> Homo sapiens

<400> 614
actgggagca gctccaacat cggggcaggt tatggtgtac ac 42

<210> 615
<211> 21
<212> DNA
<213> Homo sapiens

<400> 615
ggtgacagca atcggccctc a 21

<210> 616
<211> 33
<212> DNA
<213> Homo sapiens

<400> 616
cagtcctatg acaacagcct gagcggttat gtc 33

<210> 617
<211> 121
<212> PRT
<213> Homo sapiens

<400> 617
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
1 5 10 15

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

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

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

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

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

Ala Arg Gly Trp Tyr Ser Gly Ala Ala Trp Asn Met Gly Tyr Trp Gly
            100                 105                 110

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

<210> 618
<211> 110
<212> PRT
<213> Homo sapiens

<400> 618

```
Gln Ala Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
1               5                   10                  15

Ser Ile Thr Ile Ser Cys Thr Gly Ala Ser Gly Asp Val Gly Ala Tyr
            20                  25                  30

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

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

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65                  70                  75                  80

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

Phe Ser Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
            100                 105                 110
```

<210> 619
<211> 261
<212> PRT
<213> Homo sapiens

<400> 619

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
1               5                   10                  15

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

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

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

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

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

Ala Arg Gly Trp Tyr Ser Gly Ala Ala Trp Asn Met Gly Tyr Trp Gly
            100                 105                 110

Arg Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly
        115                 120                 125

Gly Gly Ser Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Gly Gly
    130                 135                 140

Ser Gly Gly Gly Gly Ser Ala Gln Ala Ala Leu Thr Gln Pro Ala Ser
145                 150                 155                 160

Val Ser Gly Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr Gly Ala
                165                 170                 175

Ser Gly Asp Val Gly Ala Tyr Asn Phe Val Ser Trp Tyr Gln Gln His
            180                 185                 190

Pro Gly Lys Ala Pro Lys Leu Ile Ile Tyr Asp Val Asn Lys Arg Pro
        195                 200                 205

Ser Gly Val Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala
    210                 215                 220

Ser Leu Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr
225                 230                 235                 240

Cys Ala Ser Leu Val Ser Asp Phe Ser Val Val Phe Gly Gly Gly Thr
                245                 250                 255
```

Lys Leu Thr Val Leu
260

<210> 620
<211> 5
<212> PRT
<213> Homo sapiens

<400> 620
Asp Tyr Gly Met Asn
1 5

<210> 621
<211> 17
<212> PRT
<213> Homo sapiens

<400> 621
Gly Val Asn Trp Asn Gly Gly Thr Arg Asp Tyr Ala Ala Ser Val Lys
1 5 10 15

Gly

<210> 622
<211> 12
<212> PRT
<213> Homo sapiens

<400> 622
Gly Trp Tyr Ser Gly Ala Ala Trp Asn Met Gly Tyr
1 5 10

<210> 623
<211> 16
<212> PRT
<213> Homo sapiens

<400> 623
Ser Cys Thr Gly Ala Ser Gly Asp Val Gly Ala Tyr Asn Phe Val Ser
1 5 10 15

<210> 624
<211> 7
<212> PRT
<213> Homo sapiens

<400> 624
Asp Val Asn Lys Arg Pro Ser
1 5

<210> 625
<211> 10
<212> PRT
<213> Homo sapiens

<400> 625
Ala Ser Leu Val Ser Asp Phe Ser Val Val
1 5 10

<210> 626
<211> 363
<212> DNA
<213> Homo sapiens

<400> 626
gaggtgcagc tggtggagag cggcggaggc gtggtgagac caggcggcag cctgagactg 60

agctgcgccg ccagcggctt caccttcgac gactacggca tgaactgggt gaggcaggcc 120

ccaggcaagg gcctggagtg ggtgtccggc gtgaactgga acggcggcac cagagactac 180

gccgcctctg tgaagggcag attcaccatc agccgggaca acgccaagaa cagcctgtac 240

ctgcagatga acagcctgag agccgaggac accgccctgt accactgcgc cagaggctgg 300

tacagcggag ccgcctggaa catgggctac tggggcagag gcaccctggt gaccgtgtcc 360

agc 363

<210> 627
<211> 330
<212> DNA
<213> Homo sapiens

<400> 627
caggccgccc tgacccagcc cgccagcgtg tctggcagcc caggccagag catcaccatc 60

agctgcaccg gcgccagcgg cgatgtgggc gcctacaact tcgtgtcctg gtatcagcag 120

caccccggca aggcccccaa gctgatcatc tacgacgtga acaagagacc cagcggcgtg 180

tccaacagat tcagcggcag caagagcggc aacaccgcca gcctgaccat cagcggactg 240

caggccgagg acgaggccga ctactactgc gccagcctgg tgtccgactt cagcgtggtg 300

ttcggcggag gcaccaagct gaccgtgctg 330

<210> 628
<211> 783
<212> DNA
<213> Homo sapiens

<400> 628
gaggtgcagc tggtggagag cggcggaggc gtggtgagac caggcggcag cctgagactg 60

agctgcgccg ccagcggctt caccttcgac gactacggca tgaactgggt gaggcaggcc 120

ccaggcaagg gcctggagtg ggtgtccggc gtgaactgga acggcggcac cagagactac 180

gccgcctctg tgaagggcag attcaccatc agccgggaca acgccaagaa cagcctgtac 240

ctgcagatga acagcctgag agccgaggac accgccctgt accactgcgc cagaggctgg 300

tacagcggag ccgcctggaa catgggctac tggggcagag gcaccctggt gaccgtgtcc 360

agcggaggcg gcggttcagg cggaggtggc tctggtggta gcggaggtgg ctctggcggt 420

ggcggaggtg gctctggcgg tggcggaagt gcacaggccg ccctgaccca gccgccagc 480

gtgtctggca gcccaggcca gagcatcacc atcagctgca ccggcgccag cggcgatgtg 540

ggcgcctaca acttcgtgtc ctggtatcag cagcaccccg gcaaggcccc caagctgatc 600

atctacgacg tgaacaagag acccagcggc gtgtccaaca gattcagcgg cagcaagagc 660

ggcaacaccg ccagcctgac catcagcgga ctgcaggccg aggacgaggc cgactactac 720

tgcgccagcc tggtgtccga cttcagcgtg gtgttcggcg gaggcaccaa gctgaccgtg 780

ctg 783

<210> 629
<211> 15
<212> DNA
<213> Homo sapiens

<400> 629
gactacggca tgaac 15

<210> 630
<211> 51
<212> DNA
<213> Homo sapiens

<400> 630
ggcgtgaact ggaacggcgg caccagagac tacgccgcct ctgtgaaggg c 51

<210> 631
<211> 36
<212> DNA
<213> Homo sapiens

<400> 631
ggctggtaca gcggagccgc ctggaacatg ggctac 36

<210> 632
<211> 42
<212> DNA
<213> Homo sapiens

<400> 632
accggcgcca gcggcgatgt gggcgcctac aacttcgtgt cc 42

<210> 633
<211> 21
<212> DNA
<213> Homo sapiens

<400> 633
gacgtgaaca agagacccag c 21

<210> 634
<211> 30
<212> DNA
<213> Homo sapiens

<400> 634
gccagcctgg tgtccgactt cagcgtggtg 30