

SEQUENCE LISTING

<110> AMGEN INC.
 HUH, Joon
 STEVENSON, Riki
 BONDARENKO, Pavel
 NICHOLS, Andrew
 REN, Da
 AGRAWAL, Neeraj Jagdish
 SMITH, Richard

<120> LOW-VISCOSITY ANTIGEN BINDING PROTEINS AND METHODS OF MAKING THEM

<130> A-2063-US-PSP3

<160> 379

<170> PatentIn version 3.5

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SEQUENCE LISTING

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<213> Homo sapiens

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Leu Ser Pro Gly Asp Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser
35 40 45

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

Pro Arg Leu Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro
65 70 75 80

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
85 90 95

Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr
100 105 110

Asp Arg Ser Pro Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
115 120 125

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
130 135 140

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
145 150 155 160

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
165 170 175

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
180 185 190

SEQUENCE LISTING

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
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Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
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Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

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20          25          30

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Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ser Ser Gly Tyr Thr Phe
35          40          45

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Thr Gly Tyr Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
50          55          60

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Glu Trp Met Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala
65          70          75          80

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Gln Lys Phe Lys Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser
85          90          95

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Tyr Tyr Cys Ala Arg Asp Lys Trp Leu Asp Gly Phe Asp Tyr Trp Gly

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SEQUENCE LISTING

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Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
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Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala
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Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
165 170 175

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
180 185 190

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
195 200 205

Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His
210 215 220

Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys
225 230 235 240

Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val
245 250 255

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
260 265 270

Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
275 280 285

Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
290 295 300

Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser
305 310 315 320

Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys

SEQUENCE LISTING

325

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Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile
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Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
355 360 365

Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
370 375 380

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
385 390 395 400

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser
405 410 415

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
420 425 430

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
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SEQUENCE LISTING

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<400> 6

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Leu Pro Val Thr Pro Gly Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser
35 40 45

Gln Ser Leu Leu Asn Ser Val Asp Gly Ser Thr Asn Leu Asp Trp Tyr
50 55 60

Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr Thr Leu Ser
65 70 75 80

Tyr Arg Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly
85 90 95

Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly
100 105 110

Val Tyr Tyr Cys Met Gln Arg Ile Glu Phe Pro Leu Thr Phe Gly Gly

SEQUENCE LISTING

115

120

125

Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe
130 135 140

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

Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp
165 170 175

Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr
180 185 190

Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr
195 200 205

Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val
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Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly
225 230 235 240

Glu Cys

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SEQUENCE LISTING

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SEQUENCE LISTING

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
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Ser Ser Tyr Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ser Tyr Ile Ser Ser Ser Gly Ser Ser Ile Tyr Tyr Ala
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
85 90 95

Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Asp Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Glu Arg Tyr Tyr Gly Asp Thr Pro Phe Asp Tyr
115 120 125

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
130 135 140

Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser
145 150 155 160

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
165 170 175

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
180 185 190

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
195 200 205

Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val
210 215 220

Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys
225 230 235 240

SEQUENCE LISTING

Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro
245 250 255

Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
260 265 270

Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
275 280 285

Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
290 295 300

Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val
305 310 315 320

Val Ser Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu
325 330 335

Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys
340 345 350

Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
355 360 365

Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr
370 375 380

Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
385 390 395 400

Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu
405 410 415

Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
420 425 430

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
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SEQUENCE LISTING

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SEQUENCE LISTING

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25

30

Thr Pro Lys Glu Lys Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile
35 40 45

Gly Ser Ser Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys
50 55 60

Leu Leu Ile Lys Tyr Ala Ser Gln Ser Phe Ser Gly Val Pro Ser Arg
65 70 75 80

Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser
85 90 95

Leu Glu Ala Glu Asp Ala Ala Ala Tyr Tyr Cys His Gln Ser Ser Ser
100 105 110

Leu Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr
115 120 125

Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu
130 135 140

Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro
145 150 155 160

Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly
165 170 175

Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr
180 185 190

Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His
195 200 205

Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val
210 215 220

Thr Lys Ser Phe Asn Arg Gly Glu Cys

SEQUENCE LISTING

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Pro Gly Glu Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe
35 40 45

Ser Phe His Trp Ile Ala Trp Val Arg Gln Met Pro Gly Lys Gly Leu
50 55 60

Glu Trp Met Gly Ile Ile His Pro Gly Ala Ser Asp Thr Arg Tyr Ser
65 70 75 80

Pro Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Asn Ser Asn Ser
85 90 95

Ala Thr Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met
100 105 110

Tyr Phe Cys Ala Arg Gln Arg Glu Leu Asp Tyr Phe Asp Tyr Trp Gly
115 120 125

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

Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala
145 150 155 160

SEQUENCE LISTING

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
165 170 175

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
180 185 190

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
195 200 205

Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His
210 215 220

Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys
225 230 235 240

Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val
245 250 255

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
260 265 270

Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
275 280 285

Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
290 295 300

Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser
305 310 315 320

Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
325 330 335

Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile
340 345 350

Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
355 360 365

SEQUENCE LISTING

Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
370 375 380

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
385 390 395 400

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser
405 410 415

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
420 425 430

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
435 440 445

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

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<212> DNA
<213> Homo sapiens

<400> 13
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gttacaataa cttgcaaagc gagccaggac atcaacaaat atgtggcttg gtatcagcaa 180
aaacccggca aggcaccaaa attgctcatt tattacacgt catggctcca gcctgggtgta 240
cctagcagggt tttccggctc cggctcagggt accgacttta ctttcactat ctcctcactg 300
cagccggagg acattgccac atactactgt ctccaatatg ataacttggt gtatactttt 360
gggcaaggaa ctaagctcga gatcaaactg acgggtggctg caccatctgt cttcatcttc 420
ccgcatctg atgagcagtt gaaatctgga actgcctctg ttgtgtgcct gctgaataac 480
ttctatccca gagaggccaa agtacagtgg aagggtggata acgccctcca atcgggtaac 540
tcccaggaga gtgtcacaga gcaggacagc aaggacagca cctacagcct cagcagcacc 600
ctgacgctga gcaaagcaga ctacgagaaa cacaaagtct acgcctgcga agtcacccat 660

SEQUENCE LISTING

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708

<210> 14
<211> 236
<212> PRT
<213> Homo sapiens

<400> 14

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 5 10 15

Leu Arg Gly Ala Arg Cys Asp Ile Gln Met Thr Gln Ser Pro Ser Ser
20 25 30

Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Lys Ala Ser
35 40 45

Gln Asp Ile Asn Lys Tyr Val Ala Trp Tyr Gln Gln Lys Pro Gly Lys
50 55 60

Ala Pro Lys Leu Leu Ile Tyr Tyr Thr Ser Trp Leu Gln Pro Gly Val
65 70 75 80

Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr
85 90 95

Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala Thr Tyr Tyr Cys Leu Gln
100 105 110

Tyr Asp Asn Leu Leu Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile
115 120 125

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
130 135 140

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
145 150 155 160

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu

SEQUENCE LISTING

165

170

175

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
180 185 190

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
195 200 205

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
210 215 220

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 15
<211> 1401
<212> DNA
<213> Homo sapiens

<400> 15
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aggctgagct gtgctgcatc agggttcacc tttagccgtt actggatgaa ctgggtgcgg 180
caagcacccg ggaaaggcct ggagtgggtg gctcagattc gcttgaaaag tgacaattat 240
gccactcact atgcagaaag cgtgaagggg cgctttacaa tttctagaga caacgccaaa 300
aactcactgt acctgcagat gaacagcctc agagctgagg atacagctgt gtattattgt 360
actgaggggc tcgactattg gggacagggc acgacagtga ccgtctctag tgcctccacc 420
aaggggccat cggctcttccc cctggcaccc tcctccaaga gcacctctgg gggcacagcg 480
gccctgggct gcctgggtcaa ggactacttc cccgaaccgg tgacgggtgtc gtggaactca 540
ggcgccctga ccagcggcgt gcacaccttc ccggctgtcc tacagtcctc aggactctac 600
tccctcagca gcgtgggtgac cgtgccctcc agcagcttgg gcacccagac ctacatctgc 660
aacgtgaatc acaagcccag caacaccaag gtggacaaga aagttgagcc caaatcttgt 720
gacaaaactc acacatgccc accgtgcca gcacctgaac tcctgggggg accgtcagtc 780
ttcctcttcc ccccaaaacc caaggacacc ctcatgatct cccggacccc tgaggtcaca 840

SEQUENCE LISTING

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tgcgtggtgg tggacgtgag ccacgaagac cctgaggtca agttcaactg gtacgtggac      900
ggcgtggagg tgcataatgc caagacaaag ccgcgggagg agcagtacaa cagcacgtac      960
cgtgtggtca gcgtcctcac cgtcctgcac caggactggc tgaatggcaa ggagtacaag     1020
tgcaaggtct ccaacaaagc cctcccagcc cccatcgaga aaaccatctc caaagccaaa     1080
gggcagcccc gagaaccaca ggtgtacacc ctgcccccat cccgggagga gatgaccaag     1140
aaccaggtca gcctgacctg cctgggtcaaa ggcttctatc ccagcgacat cgccgtggag     1200
tgggagagca atgggcagcc ggagaacaac tacaagacca cgctcccgt gctggactcc     1260
gacggctcct tcttcctcta tagcaagctc accgtggaca agagcaggtg gcagcagggg     1320
aacgtcttct catgctccgt gatgcatgag gctctgcaca accactacac gcagaagagc     1380
ctctccctgt ctccgggtaa a                                              1401

```

```

<210> 16
<211> 467
<212> PRT
<213> Homo sapiens

```

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<400> 16

```

```

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1          5          10          15

```

```

Leu Arg Gly Ala Arg Cys Glu Val Gln Leu Val Glu Ser Gly Gly Gly
          20          25          30

```

```

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
          35          40          45

```

```

Phe Thr Phe Ser Arg Tyr Trp Met Asn Trp Val Arg Gln Ala Pro Gly
          50          55          60

```

```

Lys Gly Leu Glu Trp Val Ala Gln Ile Arg Leu Lys Ser Asp Asn Tyr
65          70          75          80

```

```

Ala Thr His Tyr Ala Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
          85          90          95

```

SEQUENCE LISTING

Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala
100 105 110

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Glu Gly Leu Asp Tyr Trp Gly
115 120 125

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

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
145 150 155 160

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
165 170 175

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
180 185 190

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
195 200 205

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
210 215 220

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
225 230 235 240

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
245 250 255

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
260 265 270

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
275 280 285

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
290 295 300

SEQUENCE LISTING

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
305 310 315 320

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
325 330 335

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
340 345 350

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
355 360 365

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
370 375 380

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
385 390 395 400

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
405 410 415

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
420 425 430

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
435 440 445

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
450 455 460

Pro Gly Lys
465

<210> 17
<211> 708
<212> DNA
<213> Homo sapiens

<400> 17
atggacatga gggctcctgc tcagctcctg gggctcctgc tgctctgttt cccaggtgcc

60

SEQUENCE LISTING

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agatgtgaca tccagatgac ccagtctcca tcctcactgt ctgcatctgt aggagacaga      120
gtcaccatca cttgtcgggc gagtcagggt attagcaact ggtagcctg gtatcagcag      180
aaaccagaga aagcccctaa gtccctgata tatgctgcat ccagtttgca aagtggggtc      240
ccatcaaggt tcagcggcag tggatctggg acagatttca ctctcaccat cagcagcctg      300
cagcctgaag attttgcaac ttattactgc caacagtatg atagttaccc tcggacgttc      360
ggccaaggga ccaagggtga aatcaaacga actgtggctg caccatctgt cttcatcttc      420
ccgcatctg atgagcagtt gaaatctgga actgcctctg ttgtgtgcct gctgaataac      480
ttctatccca gagaggccaa agtacagtgg aagggtggata acgccctcca atcgggtaac      540
tcccaggaga gtgtcacaga gcaggacagc aaggacagca cctacagcct cagcagcacc      600
ctgacgctga gcaaagcaga ctacgagaaa cacaaagtct acgcctgcga agtcacccat      660
cagggcctga gctcgccgt cacaagagc ttcaacaggg gagagtgt      708

```

```

<210> 18
<211> 236
<212> PRT
<213> Homo sapiens

```

```

<400> 18

```

```

Met Asp Met Arg Val Leu Ala Gln Leu Leu Gly Leu Leu Leu Leu Cys
1           5           10          15

```

```

Phe Pro Gly Ala Arg Cys Asp Ile Gln Met Thr Gln Ser Pro Ser Ser
          20          25          30

```

```

Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser
          35          40          45

```

```

Gln Gly Ile Ser Asn Trp Leu Ala Trp Tyr Gln Gln Lys Pro Glu Lys
          50          55          60

```

```

Ala Pro Lys Ser Leu Ile Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val
65           70           75          80

```

```

Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr

```

SEQUENCE LISTING

85

90

95

Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
100 105 110

Tyr Asp Ser Tyr Pro Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
115 120 125

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
130 135 140

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
145 150 155 160

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
165 170 175

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
180 185 190

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
195 200 205

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
210 215 220

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 19

<211> 1398

<212> DNA

<213> Homo sapiens

<400> 19

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gtgcagctgg tggagtctgg gggaggcttg gtccagcctg gggggtcctt gagactctcc 120

tgtgcagctt ctggatttac ctttagtagt tattggatga gttgggtccg ccaggctcca 180

gggaaagggc tggagtgggt ggcctacata aagcaagatg gaaatgagaa atactatgtg 240

SEQUENCE LISTING

gactctgtga agggccgatt caccatctcc agagacaacg ccaagaactc attgtatctg	300
caaatgaaca gcctgagagc cgaggacacg gctgtgtatt actgtgagag ggaagggata	360
ctttggttcg gggacttacc gacgttctgg ggccagggaa ccctggtcac cgtctctagt	420
gcctccacca agggcccatc ggtcttcccc ctggcgccct gctccaggag cacctccgag	480
agcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacgggtgtcg	540
tggaactcag gcgctctgac cagcggcgtg cacaccttcc cagctgtcct acagtcctca	600
ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcaacttcgg caccagacc	660
tacacctgca acgtagatca caagcccagc aacaccaagg tggacaagac agttgagcgc	720
aaatgtttgtg tcgagtgtccc accgtgtccc gcaccacctg tggcaggacc gtcagtcttc	780
ctcttcccc caaaaccaa ggacaccctc atgatctccc ggaccctga ggtcacgtgc	840
gtgggtgggtg acgtgagcca cgaagacccc gaggtccagt tcaactggta cgtggacggc	900
gtggaggtgc ataatgcaa gacaaagcca cgggaggagc agttcaacag cacgttccgt	960
gtggtcagcg tcctcaccgt tgtgcaccag gactggctga acggcaagga gtacaagtgc	1020
aaggtctcca acaaaggcct ccagcccc atcgagaaaa ccatctcaa aaccaaaggg	1080
cagccccgag aaccacaggt gtacaccctg ccccatccc gggaggagat gaccaagaac	1140
caggtcagcc tgacctgcct ggtcaaaggc ttctaccca gcgacatcgc cgtggagtgg	1200
gagagcaatg ggagccgga gaacaactac aagaccacac ctcccatgct ggactccgac	1260
ggctccttct tcctctacag caagctcacc gtggacaaga gcaggtggca gcaggggaac	1320
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tccctgtctc cgggtaaa	1398

<210> 20
 <211> 466
 <212> PRT
 <213> Homo sapiens

<400> 20

Met	Glu	Leu	Gly	Leu	Asn	Trp	Val	Phe	Leu	Val	Ala	Ile	Leu	Glu	Gly
1				5				10					15		

SEQUENCE LISTING

Val	His	Cys	Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Gln	20	25	30
Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	35	40	45
Ser	Ser	Tyr	Trp	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	50	55	60
Glu	Trp	Val	Ala	Tyr	Ile	Lys	Gln	Asp	Gly	Asn	Glu	Lys	Tyr	Tyr	Val	65	70	75
Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala	Lys	Asn	85	90	95
Ser	Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	100	105	110
Tyr	Tyr	Cys	Ala	Arg	Glu	Gly	Ile	Leu	Trp	Phe	Gly	Asp	Leu	Pro	Thr	115	120	125
Phe	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	130	135	140
Gly	Pro	Ser	Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	145	150	155
Ser	Thr	Ala	Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	165	170	175
Val	Thr	Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	180	185	190
Phe	Pro	Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	195	200	205
Val	Thr	Val	Pro	Ser	Ser	Asn	Phe	Gly	Thr	Gln	Thr	Tyr	Thr	Cys	Asn	210	215	220

SEQUENCE LISTING

Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg
225 230 235 240

Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly
245 250 255

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
260 265 270

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
275 280 285

Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
290 295 300

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg
305 310 315 320

Val Val Ser Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys
325 330 335

Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu
340 345 350

Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
355 360 365

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
370 375 380

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
385 390 395 400

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met
405 410 415

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
420 425 430

SEQUENCE LISTING

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
435 440 445

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
450 455 460

Gly Lys
465

<210> 21
<211> 723
<212> DNA
<213> Homo sapiens

<400> 21
atggacatga ggctccctgc tcagctcctg gggctgctaa tgctctgggt cccaggatcc 60
agtggggatg ttctgatgac tcagtctcca ctctccctgc ccgtcacct tggacagccg 120
gcctccatct cctgcaggtc tagtcaaagc atcgtacaca gtaacggaaa cacctacttg 180
gagtggatatc tgcagaggcc aggccaatct ccaaagctcc taatttataa ggtttctaac 240
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aaaatcagca ggggtggaggc tgaggatgtt ggggtttatt actgcttcca aggtagccac 360
gttcctctga cgttcggcgc agggaccaag ctggaaatca aacggactgt ggctgcacca 420
tctgtcttca tcttcccgcc atctgatgag cagttgaaat ctggaactgc ctctgttgtg 480
tgcttgctga ataacttcta tcccagagag gccaaagtac agtggaaggt ggataacgcc 540
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tgt 723

<210> 22
<211> 241
<212> PRT
<213> Homo sapiens

<400> 22

SEQUENCE LISTING

Met Asp Met Arg Leu Pro Ala Gln Leu Leu Gly Leu Leu Met Leu Trp
1 5 10 15

Val Pro Gly Ser Ser Gly Asp Val Leu Met Thr Gln Ser Pro Leu Ser
20 25 30

Leu Pro Val Thr Leu Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser
35 40 45

Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu
50 55 60

Gln Arg Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn
65 70 75 80

Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr
85 90 95

Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val
100 105 110

Tyr Tyr Cys Phe Gln Gly Ser His Val Pro Leu Thr Phe Gly Ala Gly
115 120 125

Thr Lys Leu Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile
130 135 140

Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val
145 150 155 160

Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys
165 170 175

Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu
180 185 190

Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu
195 200 205

SEQUENCE LISTING

Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr
 210 215 220

His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu
 225 230 235 240

Cys

<210> 23
 <211> 1410
 <212> DNA
 <213> Homo sapiens

<400> 23
 atggacacac tttgctccac gtcctgctg ctgaccatcc cttcatgggt cttgtcccag 60
 gtcaccttga aggagtctgg tcctgcgctg gtgaaacca cacagaccct cacgctgacc 120
 tgcaccttct ctgggttctc actccgcact agtggaaatgg gcgtgggctg gatccgtcag 180
 cccccaggaa aggccctgga gtggccttgcc cacatttgggt gggatgatga taagagctac 240
 aacccatctc tgaagagcca gtcaccatc tctaaggaca cctccaaaaa ccaggtggtc 300
 cttacaatga ccaacatgga ccctgtggac acagccacat attactgtgc acgcagaaac 360
 tattactacg acgactactt cgcctactgg ggccagggca ccctgggtcac cgtctctagt 420
 gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg 480
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 ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg caccagacc 660
 tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagaa agttgagccc 720
 aaatcttgtg acaaaaactca cacatgcca ccgtgcccag cacctgaact cctgggggga 780
 ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggaccctt 840
 gaggtcacat gcgtgggtgtt ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg 900
 tacgtggacg gcgtggaggt gcataatgcc aagacaaagc cgcgggagga gcagtacaac 960
 agcacgtacc gtgtgggtcag cgtcctcacc gtcctgcacc aggactggct gaatggcaag 1020

SEQUENCE LISTING

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gagtacaagt gcaaggtctc caacaaagcc ctcccagccc ccatcgagaa aaccatctcc 1080
aaagccaaag ggcagccccc agaaccacag gtgtacaccc tgcccccata ccgggatgag 1140
ctgaccaaga accaggtcag cctgacctgc ctggtcaaag gcttctatcc cagcgacatc 1200
gccgtggagt gggagagcaa tgggcagccg gagaacaact acaagaccac gcctcccgtg 1260
ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcaggtgg 1320
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg 1380
cagaagagcc tctccctgtc tccgggtaaa 1410

```

```

<210> 24
<211> 470
<212> PRT
<213> Homo sapiens

```

```

<400> 24

```

```

Met Asp Thr Leu Cys Ser Thr Leu Leu Leu Leu Thr Ile Pro Ser Trp
1          5          10          15

```

```

Val Leu Ser Gln Val Thr Leu Lys Glu Ser Gly Pro Ala Leu Val Lys
20          25          30

```

```

Pro Thr Gln Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu
35          40          45

```

```

Arg Thr Ser Gly Met Gly Val Gly Trp Ile Arg Gln Pro Pro Gly Lys
50          55          60

```

```

Ala Leu Glu Trp Leu Ala His Ile Trp Trp Asp Asp Asp Lys Ser Tyr
65          70          75          80

```

```

Asn Pro Ser Leu Lys Ser Gln Leu Thr Ile Ser Lys Asp Thr Ser Lys
85          90          95

```

```

Asn Gln Val Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala
100         105         110

```

```

Thr Tyr Tyr Cys Ala Arg Arg Asn Tyr Tyr Tyr Asp Asp Tyr Phe Ala

```

SEQUENCE LISTING

115

120

125

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys
130 135 140

Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly
145 150 155 160

Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro
165 170 175

Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr
180 185 190

Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val
195 200 205

Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn
210 215 220

Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro
225 230 235 240

Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu
245 250 255

Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
260 265 270

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
275 280 285

Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly
290 295 300

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn
305 310 315 320

Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp

SEQUENCE LISTING

325

330

335

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro
340 345 350

Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu
355 360 365

Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn
370 375 380

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
385 390 395 400

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
405 410 415

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
420 425 430

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
435 440 445

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
450 455 460

Ser Leu Ser Pro Gly Lys
465 470

<210> 25
<211> 705
<212> DNA
<213> Homo sapiens

<400> 25
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ctctcctgca gggccagtca gagtgttagc agcagctact tcgcctggta ccaacagaaa 180
cctggccagg ctcccaggct cctcatctat ggtacatcca gcagggccac tggcatccca 240

SEQUENCE LISTING

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caagggacca aggtggaaat caaacgtacg gtggctgcac catctgtctt catcttcccg      420
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc      480
tatcccagag aggccaaagt acagtggaag gtggataacg ccctccaatc gggtaactcc      540
caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg      600
acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt caccatcag      660
ggcctgagct cgcccgtcac aaagagcttc aacaggggag agtgt      705

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<210> 26
<211> 235
<212> PRT
<213> Homo sapiens

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<400> 26

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Met Glu Thr Pro Ala Gln Leu Leu Phe Leu Leu Leu Leu Trp Leu Pro
1           5           10           15

```

```

Asp Thr Thr Gly Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser
          20           25           30

```

```

Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser
          35           40           45

```

```

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

```

```

Pro Arg Leu Leu Ile Tyr Gly Thr Ser Ser Arg Ala Thr Gly Ile Pro
65           70           75           80

```

```

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Val
          85           90           95

```

```

Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr
          100          105          110

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SEQUENCE LISTING

Asp Arg Ser Pro Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
115 120 125

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
130 135 140

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
145 150 155 160

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
165 170 175

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
180 185 190

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
195 200 205

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
210 215 220

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 27
<211> 1389
<212> DNA
<213> Homo sapiens

<400> 27
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tgcaaggctt ctggatacac cttcaccggc tactatatac actgggtgcg acaggcccct 180
ggacaagggc ttgagtggat gggatggatc aaccctaaca gtggtggcac aaactatgca 240
caaaagtttc agggcagggt caccatgacc agggacacgt ccatcagcac agcctccatg 300
gaactgagca ggctgagatc tgacgacacg gccgtttatt tctgtgagag agatcggtgg 360
ctggatgctt ttgatattctg gggccaaggg acaatggtca ccgtctcttc tgctagcacc 420

SEQUENCE LISTING

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aagggcccat cggtcttccc cctggcgccc tgctccagga gcacctccga gagcacagcg      480
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ggcgtcttga ccagcggcgt gcacaccttc ccagctgtcc tacagtcctc aggactctac      600
tccctcagca gcgtgggtgac cgtgccctcc agcaacttcg gcacccagac ctacacctgc      660
aacgtagatc acaagcccag caacaccaag gtggacaaga cagttgagcg caaatgttgt      720
gtcgagtgcc caccgtgccc agcaccacct gtggcaggac cgtcagtctt cctcttcccc      780
ccaaaacca aggacacctt catgatctcc cggacccttg aggtcacgtg cgtggtggtg      840
gacgtgagcc acgaagacct cgaggtccag ttcaactggt acgtggacgg cgtggaggtg      900
cataatgcca agacaaagcc acgggaggag cagttcaaca gcacgttccg tgtggtcagc      960
gtcctcaccg ttgtgcacca ggactggctg aacggcaagg agtacaagtg caaggtctcc     1020
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gaaccacagg tgtacacctt gccccatcc cgggaggaga tgaccaagaa ccaggtcagc     1140
ctgacctgcc tgggtcaaagg cttctacccc agcgacatcg ccgtggagtg ggagagcaat     1200
gggcagccgg agaacaacta caagaccaca cctcccatgc tggactccga cggctccttc     1260
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ccgggtaaa                                         1389

```

```

<210> 28
<211> 463
<212> PRT
<213> Homo sapiens

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```

<400> 28

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```

Met Asp Trp Thr Trp Arg Ile Leu Phe Leu Val Ala Ala Ala Thr Gly
1           5           10          15

```

```

Ala His Ser Gln Val Gln Leu Val Gln Ser Gly Ala Ala Val Lys Lys
          20          25          30

```

```

Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe

```

SEQUENCE LISTING

35

40

45

Thr Gly Tyr Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
50 55 60

Glu Trp Met Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala
65 70 75 80

Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser
85 90 95

Thr Ala Ser Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val
100 105 110

Tyr Phe Cys Ala Arg Asp Arg Trp Leu Asp Ala Phe Asp Ile Trp Gly
115 120 125

Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
130 135 140

Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala
145 150 155 160

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
165 170 175

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
180 185 190

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
195 200 205

Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His
210 215 220

Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys
225 230 235 240

Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val

SEQUENCE LISTING

245

250

255

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
260 265 270

Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
275 280 285

Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
290 295 300

Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser
305 310 315 320

Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
325 330 335

Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile
340 345 350

Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
355 360 365

Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
370 375 380

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
385 390 395 400

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser
405 410 415

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
420 425 430

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
435 440 445

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys

SEQUENCE LISTING

450

455

460

<210> 29
<211> 705
<212> DNA
<213> Homo sapiens

<400> 29
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ctctcctgca gggccagtca gagtgttagc agcggctact taacctggta ccagcagaaa 180
cctggccagg ctcccagact cctcatctat ggtgcatcca gcagggccac tggcatccca 240
gacaggttca gtggcagtgg gtctgggacg gacttcactc tcaccatcag cagactggag 300
cctgaagatt ttgcagtgtg ttactgtcag cagtatggta actcactgag caggtttggc 360
caggggacca agctggagat caaacgtacg gtggctgcac catctgtctt catcttcccg 420
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc 480
tatcccagag aggccaaagt acagtggaag gtggataacg ccctccaatc gggtaactcc 540
caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg 600
acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt caccatcag 660
ggcctgagct cgcccgtcac aaagagcttc aacaggggag agtgt 705

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

<400> 30

Met Glu Thr Pro Ala Gln Leu Leu Phe Leu Leu Leu Leu Trp Leu Pro
1 5 10 15

Asp Thr Thr Gly Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser
20 25 30

Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser
35 40 45

SEQUENCE LISTING

Val Ser Ser Gly Tyr Leu Thr Trp Tyr Gln Gln Lys Pro Gly Gln Ala
50 55 60

Pro Arg Leu Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro
65 70 75 80

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
85 90 95

Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr
100 105 110

Gly Asn Ser Leu Ser Arg Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
115 120 125

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
130 135 140

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
145 150 155 160

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
165 170 175

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
180 185 190

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
195 200 205

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
210 215 220

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 31
<211> 1422
<212> DNA

SEQUENCE LISTING

<213> Homo sapiens

<400> 31

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agactctcct gtgcagcgtc	tggattcacc ttcagtagct	atggcatgca ctgggtccgc	180
caggctccag gcaaggggct	ggagtgggtg gcagttatat	ggtatgatgg aagtaataaa	240
tactatgcag actccgtgaa	gggccgattc atcatctcca	gagataaatc caagaacacg	300
ctgtatctgc aaatgaacag	cctgagagcc gaggacacgg	ctgtgtatta ctgtgcgaga	360
gcgggggggta tagcagcagc	tggcctctac tactactacg	gtatggacgt ctggggccaa	420
gggaccacgg tcaccgtctc	tagtgcctcc accaagggcc	catcggtctt cccctggcg	480
ccctgtctca ggagcacctc	cgagagcaca gcggccctgg	gctgcctggg caaggactac	540
ttccccgaac cggtgacgg	gtcgtggaac tcaggcgctc	tgaccagcgg cgtgcacacc	600
ttcccagctg tcctacagtc	ctcaggactc tactccctca	gcagcgtggg gaccgtgccc	660
tccagcaact tcggcaccca	gacctacacc tgcaacgtag	atcacaagcc cagcaacacc	720
aaggtggaca agacagttga	gcgcaaagtgt tgtgtcgagt	gccaccctg cccagcacca	780
cctgtggcag gaccgtcagt	cttcctcttc cccccaaaac	ccaaggacac cctcatgac	840
tcccggaccc ctgaggtcac	gtgcgtgggtg gtggacgtga	gccacgaaga ccccgaggtc	900
cagttcaact ggtacgtgga	cggcgtggag gtgcataatg	ccaagacaaa gccacgggag	960
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cccagcgaca tcgccgtgga	gtgggagagc aatgggcagc	cggagaacaa ctacaagacc	1260
acacctccca tgctggactc	cgacggctcc ttcttctct	acagcaagct caccgtggac	1320
aagagcaggt ggcagcaggg	gaacgtcttc tcatgctccg	tgatgcatga ggctctgcac	1380
aaccactaca cgagaagag	cctctccctg tctccgggta	aa	1422

SEQUENCE LISTING

<210> 32
 <211> 474
 <212> PRT
 <213> Homo sapiens

<400> 32

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
 1 5 10 15

Leu Arg Gly Ala Arg Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly
 20 25 30

Val Val Gln Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
 35 40 45

Phe Thr Phe Ser Ser Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly
 50 55 60

Lys Gly Leu Glu Trp Val Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys
 65 70 75 80

Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Ile Ile Ser Arg Asp Lys
 85 90 95

Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
 100 105 110

Thr Ala Val Tyr Tyr Cys Ala Arg Ala Gly Gly Ile Ala Ala Ala Gly
 115 120 125

Leu Tyr Tyr Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val
 130 135 140

Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala
 145 150 155 160

Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu
 165 170 175

Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly

SEQUENCE LISTING

180

185

190

Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser
195 200 205

Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Asn Phe
210 215 220

Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr
225 230 235 240

Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro
245 250 255

Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro
260 265 270

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
275 280 285

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp
290 295 300

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
305 310 315 320

Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val
325 330 335

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
340 345 350

Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly
355 360 365

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
370 375 380

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr

SEQUENCE LISTING

385 390 395 400

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
405 410 415

Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe
420 425 430

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
435 440 445

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
450 455 460

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
465 470

<210> 33
<211> 806
<212> DNA
<213> Homo sapiens

<400> 33
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agtcctggg gtcctgctg ctgtggctga gaggtgcgcg ctgttcttct gagctgactc 180
aggaccctac tgtgtctgtg gccttgggac agacagtcaa aatcacatgc caaggagaca 240
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agtcccaagc caacaaggcc aactagtgt gtctgatcag tgacttctac ccgggagctg 600
tgacagtggc ctggaaggca gatggcagcc ccgtcaaggc gggagtggag accaccaaac 660
cctccaaaca gagcaacaac aagtacgcgg ccagcagcta cctgagcctg acgcccgagc 720

SEQUENCE LISTING

agtggaagtc ccacagaagc tacagctgcc aggtcacgca tgaaggagc accgtggaga 780
agacagtggc ccctacagaa tgttca 806

<210> 34
<211> 236
<212> PRT
<213> Homo sapiens

<400> 34

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 5 10 15

Leu Arg Gly Ala Arg Cys Ser Ser Glu Leu Thr Gln Asp Pro Thr Val
20 25 30

Ser Val Ala Leu Gly Gln Thr Val Lys Ile Thr Cys Gln Gly Asp Ser
35 40 45

Leu Arg Ser Phe Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala
50 55 60

Pro Val Leu Val Phe Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro
65 70 75 80

Asp Arg Phe Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile
85 90 95

Thr Gly Ala Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg
100 105 110

Asp Ser Ser Val Tyr His Leu Val Leu Gly Gly Gly Thr Lys Leu Thr
115 120 125

Val Leu Gly Gln Pro Lys Ala Asn Pro Thr Val Thr Leu Phe Pro Pro
130 135 140

Ser Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile
145 150 155 160

SEQUENCE LISTING

Ser Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Gly
165 170 175

Ser Pro Val Lys Ala Gly Val Glu Thr Thr Lys Pro Ser Lys Gln Ser
180 185 190

Asn Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln
195 200 205

Trp Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser
210 215 220

Thr Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
225 230 235

<210> 35
<211> 1434
<212> DNA
<213> Homo sapiens

<400> 35
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aaggtctcct gcaaggcttc tggatacacc ttcaccggct actatatgca ctgggtgcga 180
caggcccctg gacaagggct tgagtggatg ggatggatca accctaacag tgggtggcaca 240
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gatcaaatga gtattattat gcttcgggga gtttttcccc cttactatta cggtatggac 420
gtctggggcc aagggaccac ggtcaccgtc tctagtgcct ccaccaaggg cccatcggtc 480
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gtgaccgtgc cctccagcaa cttcggcacc cagacctaca cctgcaacgt agatcacaag 720
cccagcaaca ccaaggtgga caagacagtt gagcgcaaat gttgtgtcga gtgcccaccg 780

SEQUENCE LISTING

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tgcccagcac cacctgtggc aggaccgtca gtcttcctct tcccccaaa acccaaggac      840
accctcatga tctcccggac ccctgaggtc acgtgcgtgg tgggtggacgt gagccacgaa      900
gaccccgagg tccagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca      960
aagccacggg aggagcagtt caacagcacg ttccgtgtgg tcagcgtcct caccgttgtg     1020
caccaggact ggctgaacgg caaggagtac aagtgaagg tctccaacaa aggcctccca     1080
gcccccatcg agaaaacat ctccaaaacc aaagggcagc cccgagaacc acaggtgtac     1140
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aactacaaga ccacacctcc catgctggac tccgacggct ctttcttcct ctacagcaag     1320
ctcaccgtgg acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat     1380
gaggctctgc acaaccacta cacgcagaag agcctctccc tgtctccggg taaa          1434

```

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<210> 36
<211> 478
<212> PRT
<213> Homo sapiens

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<400> 36

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Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1           5           10          15

```

```

Leu Arg Gly Ala Arg Cys Gln Val Gln Leu Val Gln Ser Gly Ala Glu
          20          25          30

```

```

Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly
      35          40          45

```

```

Tyr Thr Phe Thr Gly Tyr Tyr Met His Trp Val Arg Gln Ala Pro Gly
50           55          60

```

```

Gln Gly Leu Glu Trp Met Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr
65           70          75          80

```

```

Asn Tyr Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr

```

SEQUENCE LISTING

85

90

95

Ser Ile Ser Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp Asp
 100 105 110

Thr Ala Val Tyr Phe Cys Ala Arg Asp Gln Met Ser Ile Ile Met Leu
 115 120 125

Arg Gly Val Phe Pro Pro Tyr Tyr Tyr Gly Met Asp Val Trp Gly Gln
 130 135 140

Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 145 150 155 160

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
 165 170 175

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 180 185 190

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 195 200 205

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 210 215 220

Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys
 225 230 235 240

Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val
 245 250 255

Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe
 260 265 270

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
 275 280 285

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val

SEQUENCE LISTING

290

295

300

Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
305 310 315 320

Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val
325 330 335

Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
340 345 350

Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
355 360 365

Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
370 375 380

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
385 390 395 400

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
405 410 415

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp
420 425 430

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
435 440 445

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
450 455 460

Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
465 470 475

<210> 37

<211> 723

<212> DNA

<213> Homo sapiens

SEQUENCE LISTING

<400> 37

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gcctccatct cctgcaggtc tagtcagagc ctcctgcata gtaatggata caactatttg      180
gattggtacc tgcagaagcc agggcagtct ccacagctcc tgatctattt gggtttctaatt      240
cgggcctccg ggggtccctga caggttcagt ggcagtggat caggcacaga ttttacctg      300
aaaatcagca gaggggaggc tgaggatgtt ggggtttatt actgcatgca agctctacaa      360
actccgctca ctttcggcgg agggaccaag gtagagatca aacggactgt ggctgcacca      420
tctgtcttca tcttcccgcc atctgatgag cagttgaaat ctggaactgc ctctgtttgtg      480
tgcctgctga ataacttcta tcccagagag gccaaagtac agtggaaggt ggataacgcc      540
ctccaatcgg gtaactccca ggagagtgtc acagagcagg acagcaagga cagcacctac      600
agcctcagca gcaccctgac gctgagcaaa gcagactacg agaaacacaa agtctacgcc      660
tgcgaagtca cccatcaggg cctgagctcg cccgtcacaa agagcttcaa caggggagag      720
tgt                                                    723

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<210> 38

<211> 241

<212> PRT

<213> Homo sapiens

<400> 38

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Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1           5           10          15

```

```

Leu Arg Gly Ala Arg Cys Asp Ile Val Met Thr Gln Ser Pro Leu Ser
          20          25          30

```

```

Leu Pro Val Thr Pro Gly Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser
          35          40          45

```

```

Gln Ser Leu Leu His Ser Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu
          50          55          60

```

```

Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn

```

SEQUENCE LISTING																
65				70				75				80				
Arg	Ala	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	
				85					90					95		
Asp	Phe	Thr	Leu	Lys	Ile	Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	
				100					105					110		
Tyr	Tyr	Cys	Met	Gln	Ala	Leu	Gln	Thr	Pro	Leu	Thr	Phe	Gly	Gly	Gly	
				115					120					125		
Thr	Lys	Val	Glu	Ile	Lys	Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	Phe	Ile	
				130					135					140		
Phe	Pro	Pro	Ser	Asp	Glu	Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	
				145					150					155		
Cys	Leu	Leu	Asn	Asn	Phe	Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln	Trp	Lys	
				165					170					175		
Val	Asp	Asn	Ala	Leu	Gln	Ser	Gly	Asn	Ser	Gln	Glu	Ser	Val	Thr	Glu	
				180					185					190		
Gln	Asp	Ser	Lys	Asp	Ser	Thr	Tyr	Ser	Leu	Ser	Ser	Thr	Leu	Thr	Leu	
				195					200					205		
Ser	Lys	Ala	Asp	Tyr	Glu	Lys	His	Lys	Val	Tyr	Ala	Cys	Glu	Val	Thr	
				210					215					220		
His	Gln	Gly	Leu	Ser	Ser	Pro	Val	Thr	Lys	Ser	Phe	Asn	Arg	Gly	Glu	
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<210> 39
<211> 1425
<212> DNA
<213> Homo sapiens
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SEQUENCE LISTING

<400> 39

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agactctcct gtgcagcctc cggattcacc tttagtagct attggatgag ctgggtccgc	180
caggctccag ggaaggggct ggagtgggtg gccagcataa aacaagatgg aagtgagaaa	240
tactatgtgg actctgtgaa gggccgattc accatctcca gagacaacgc caggaactca	300
ctgtatctgc aaatgaacag cctgagagcc gaggacacgg ctgtgtatta ctgtgcgaga	360
gatcttgtat taatgggtga tgatatagac tactactact acggtatgga cgtctggggc	420
caagggacca cggtcaccgt ctctcagcc tccaccaagg gcccatcggt cttccccctg	480
gcgccctgct ccaggagcac ctccgagagc acagcggccc tgggctgcct ggtcaaggac	540
tacttccccg aaccggtgac ggtgtcgtgg aactcaggcg ctctgaccag cggcgtgcac	600
accttcccag ctgtcctaca gtcctcagga ctctactccc tcagcagcgt ggtgaccgtg	660
ccctccagca acttcggcac ccagacctac acctgcaacg tagatcaca gcccagcaac	720
accaaggtgg acaagacagt tgagcgcaaa tgttgtgtcg agtgcccacc gtgcccagca	780
ccacctgtgg caggaccgtc agtcttctc tttccccaa aaccaagga caccctcatg	840
atctccccga cccctgaggt cacgtgcgtg gtggtggacg tgagccacga agaccccag	900
gtccagttca actggtacgt ggacggcgtg gaggtgcata atgccaagac aaagccacgg	960
gaggagcagt tcaacagcac gttccgtgtg gtcagcgtcc tcaccgttgt gcaccaggac	1020
tggctgaacg gcaaggagta caagtgaag gtctccaaca aaggcctccc agccccatc	1080
gagaaaacca tctccaaaac caaagggcag ccccgagaac cacaggtgta caccctgccc	1140
ccatccccggg aggagatgac caagaaccag gtcagcctga cctgcctggt caaaggcttc	1200
taccccagcg acatcgccgt ggagtgggag agcaatgggc agccggagaa caactacaag	1260
accacacctc ccatgctgga ctccgacggc tccttcttcc tctacagcaa gctcaccgtg	1320
gacaagagca ggtggcagca ggggaacgtc ttctcatgct ccgtgatgca tgaggctctg	1380
cacaaccact acacgcagaa gagcctctcc ctgtctccgg gtaaa	1425

<210> 40

<211> 475

SEQUENCE LISTING

<212> PRT

<213> Homo sapiens

<400> 40

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 5 10 15

Leu Arg Gly Ala Arg Cys Glu Val Gln Leu Val Glu Ser Gly Gly Gly
20 25 30

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
35 40 45

Phe Thr Phe Ser Ser Tyr Trp Met Ser Trp Val Arg Gln Ala Pro Gly
50 55 60

Lys Gly Leu Glu Trp Val Ala Ser Ile Lys Gln Asp Gly Ser Glu Lys
65 70 75 80

Tyr Tyr Val Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
85 90 95

Ala Arg Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
100 105 110

Thr Ala Val Tyr Tyr Cys Ala Arg Asp Leu Val Leu Met Val Tyr Asp
115 120 125

Ile Asp Tyr Tyr Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr
130 135 140

Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
145 150 155 160

Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys
165 170 175

Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser
180 185 190

SEQUENCE LISTING

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
195 200 205

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Asn
210 215 220

Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn
225 230 235 240

Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro
245 250 255

Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro
260 265 270

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
275 280 285

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Asn
290 295 300

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
305 310 315 320

Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val
325 330 335

Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
340 345 350

Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys
355 360 365

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
370 375 380

Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
385 390 395 400

SEQUENCE LISTING

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
405 410 415

Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe
420 425 430

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
435 440 445

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
450 455 460

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
465 470 475

<210> 41
<211> 723
<212> DNA
<213> Homo sapiens

<400> 41
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gcctccatct cctgcaggtc tagtcagagc ctctgcata gtaatgggta caactatttg 180
gattgggtacc tgcagaagcc agggcagctc ccacagctcc tgatctatctt gggtttcta 240
cgggcctccg ggggtccctga caggttcagt ggcagtggat caggcacaca tcttacactg 300
aaaatcagca gagtggaggc tgaggatgtt ggagtttatt actgcatgca aactctacaa 360
actccgctca ctttcggcgg agggaccaag gtagagatca aacggactgt ggctgcacca 420
tctgtcttca tcttcccgc atctgatgag cagttgaaat ctggaactgc ctctgtttgtg 480
tgctgtctga ataacttcta tcccagagag gccaaagtac agtggaaggt ggataacgcc 540
ctccaatcgg gtaactccca ggagagtgtc acagagcagg acagcaagga cagcacctac 600
agcctcagca gcaccctgac gctgagcaaa gcagactacg agaaacacaa agtctacgcc 660
tgcaagtca cccatcaggg cctgagctcg cccgtcacia agagcttcaa caggggagag 720
tgt 723

SEQUENCE LISTING

<210> 42
 <211> 241
 <212> PRT
 <213> Homo sapiens

<400> 42

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
 1 5 10 15

Leu Arg Gly Ala Arg Cys Asp Ile Val Met Thr Gln Ser Pro Leu Ser
 20 25 30

Leu Pro Val Thr Pro Gly Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser
 35 40 45

Gln Ser Leu Leu His Ser Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu
 50 55 60

Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn
 65 70 75 80

Arg Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr
 85 90 95

His Leu Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val
 100 105 110

Tyr Tyr Cys Met Gln Thr Leu Gln Thr Pro Leu Thr Phe Gly Gly Gly
 115 120 125

Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile
 130 135 140

Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val
 145 150 155 160

Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys
 165 170 175

SEQUENCE LISTING

Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu
180 185 190

Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu
195 200 205

Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr
210 215 220

His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu
225 230 235 240

Cys

<210> 43
<211> 1425
<212> DNA
<213> Homo sapiens

<400> 43
atggacatga ggggtgcccgc tcagctcctg gggctcctgc tgctgtggct gagaggtgcc 60
agatgtgagg tgcagctggt ggagtctggg ggaggcttgg tccagcctgg ggggtccctg 120
agactctcct gtgcagcctc cggattcacc tttagtaact attggatgag ctgggtccgc 180
caggctccag ggaaggggct ggagtgggtg gccagcataa aacaagatgg aagtgagaaa 240
tactatgtgg actctgtgaa gggccgattc gccatctcca gagacaacgc caagaactca 300
ctgtttctgc aaatgaacag cctgagagcc gaggacacgg ctgtgtatta ctgtgcgaga 360
gatcttgtag taatgggtgta tgatatagac tactactact acggtatgga cgtctggggc 420
caagggacca cggtcaccgt ctctcagcc tccaccaagg gcccatcggt cttccccctg 480
gcgccctgct ccaggagcac ctccgagagc acagcggccc tgggctgcct ggtcaaggac 540
tacttccccg aaccggtgac ggtgtcgtgg aactcaggcg ctctgaccag cggcgtgcac 600
accttcccag ctgtcctaca gtcctcagga ctctactccc tcagcagcgt ggtgaccgtg 660
ccctccagca acttcggcac ccagacctac acctgcaacg tagatcaciaa gccagcaac 720
accaaggtgg acaagacagt tgagcgcaaa tgttgtgtcg agtgcccacc gtgcccagca 780

SEQUENCE LISTING

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ccacctgtgg caggaccgtc agtcttcctc ttcccccaa aaccaagga caccctcatg      840
atctcccgga cccctgaggt cacgtgcgtg gtggtggacg tgagccacga agaccccgag      900
gtccagttca actggtacgt ggacggcgtg gaggtgcata atgccaagac aaagccacgg      960
gaggagcagt tcaacagcac gttccgtgtg gtcagcgtcc tcaccgttgt gcaccaggac     1020
tggctgaacg gcaaggagta caagtgcag gtctccaaca aaggcctccc agcccccatc     1080
gagaaaacca tctccaaaac caaagggcag ccccgagaac cacaggtgta caccctgccc     1140
ccatcccgga aggagatgac caagaaccag gtcagcctga cctgcctggt caaaggcttc     1200
taccacagcg acatcgccgt ggagtgggag agcaatgggc agccggagaa caactacaag     1260
accacacctc ccatgctgga ctccgacggc tccttcttcc tctacagcaa gtcaccgtg      1320
gacaagagca ggtggcagca ggggaacgtc ttctcatgct ccgtgatgca tgaggctctg      1380
cacaaccact acacgcagaa gaggctctcc ctgtctccgg gtaaa                      1425

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<210> 44
<211> 475
<212> PRT
<213> Homo sapiens

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<400> 44

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Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1           5           10          15

```

```

Leu Arg Gly Ala Arg Cys Glu Val Gln Leu Val Glu Ser Gly Gly Gly
          20          25          30

```

```

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
          35          40          45

```

```

Phe Thr Phe Ser Asn Tyr Trp Met Ser Trp Val Arg Gln Ala Pro Gly
          50          55          60

```

```

Lys Gly Leu Glu Trp Val Ala Ser Ile Lys Gln Asp Gly Ser Glu Lys
          65          70          75          80

```

```

Tyr Tyr Val Asp Ser Val Lys Gly Arg Phe Ala Ile Ser Arg Asp Asn

```

SEQUENCE LISTING

85

90

95

Ala Lys Asn Ser Leu Phe Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
100 105 110

Thr Ala Val Tyr Tyr Cys Ala Arg Asp Leu Val Leu Met Val Tyr Asp
115 120 125

Ile Asp Tyr Tyr Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr
130 135 140

Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
145 150 155 160

Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys
165 170 175

Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser
180 185 190

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
195 200 205

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Asn
210 215 220

Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn
225 230 235 240

Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro
245 250 255

Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro
260 265 270

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
275 280 285

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Asn

SEQUENCE LISTING

290

295

300

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
305 310 315 320

Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val
325 330 335

Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
340 345 350

Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys
355 360 365

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
370 375 380

Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
385 390 395 400

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
405 410 415

Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe
420 425 430

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
435 440 445

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
450 455 460

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
465 470 475

<210> 45

<211> 705

<212> DNA

<213> Homo sapiens

SEQUENCE LISTING

<400> 45
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tgctctggaa gcagctccaa cattgggaat aattatgtat cctggtacca gcagctccca 180
ggaacagccc ccaaactcct ctttatgac aataataagc gaccctcagg gattcctgac 240
cgattctctg gtcceaagtc tggcacgtca accaccctgg gcatcaccgg actccagact 300
ggggacgagg ccgattatta ctgcggaaca tgggatagcc gcctgagtgc tgtggttttc 360
ggcggaggga ccaagctgac cgtcctaggt cagcccaagg ccaacccac tgtcactctg 420
ttcccgccct cctctgagga gtcceaagcc aacaaggcca cactagtgtg tctgatcagt 480
gacttctacc cgggagctgt gacagtggcc tggaaggcag atggcagccc cgtcaaggcg 540
ggagtggaga ccaccaaacc ctcaaacag agcaacaaca agtacgcggc cagcagctac 600
ctgagcctga cgcccagca gtggaagtcc cacagaagct acagctgcca ggtcacgcat 660
gaaggagca ccgtggagaa gacagtggcc cctacagaat gttca 705

<210> 46
<211> 235
<212> PRT
<213> Homo sapiens

<400> 46
Met Thr Cys Ser Pro Leu Leu Leu Thr Leu Leu Ile His Cys Thr Gly
1 5 10 15
Ser Trp Ala Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Ala Ala
20 25 30
Pro Gly Gln Lys Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile
35 40 45
Gly Asn Asn Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro
50 55 60
Lys Leu Leu Ile Tyr Asp Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp
65 70 75 80

SEQUENCE LISTING

Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Thr Thr Leu Gly Ile Thr
85 90 95

Gly Leu Gln Thr Gly Asp Glu Ala Asp Tyr Tyr Cys Gly Thr Trp Asp
100 105 110

Ser Arg Leu Ser Ala Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val
115 120 125

Leu Gly Gln Pro Lys Ala Asn Pro Thr Val Thr Leu Phe Pro Pro Ser
130 135 140

Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser
145 150 155 160

Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Gly Ser
165 170 175

Pro Val Lys Ala Gly Val Glu Thr Thr Lys Pro Ser Lys Gln Ser Asn
180 185 190

Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp
195 200 205

Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr
210 215 220

Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
225 230 235

<210> 47
<211> 1425
<212> DNA
<213> Homo sapiens

<400> 47
atggaatttg gtctgtcttg ggtatttctg gttgctctgc tgcgtggcgt gcagtgccag 60
gtgcagctgg tggaatctgg gggaggcgtg gtccagcctg ggaggtccct gagactctcc 120
tgtgcagcct ctggattcac cttcagtagc tttggcatgc actgggtccg ccaggctcca 180

SEQUENCE LISTING

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ggcaaggggc tggagtgggt ggcagttata tcatttgatg gaagtattaa gtattctgta      240
gactccgtga agggccgatt caccatctcc agagacaatt caaagaacac gctgtttctg      300
caaatgaaca gcctgcgagc cgaggacacg gctgtgtatt actgtgagag agatcggctc      360
aattactatg atagtagtgg ttattatcac tacaaatact acggtatggc cgtctggggc      420
caagggacca cggtcaccgt ctctagtgcc tccaccaagg gcccacggt cttccccctg      480
gcgccctgct ccaggagcac ctccgagagc acagcggccc tgggctgcct ggtcaaggac      540
tacttccccg aaccggtgac ggtgtcgtgg aactcaggcg ctctgaccag cggcgtgcac      600
accttcccag ctgtcctaca gtcctcagga ctctactccc tcagcagcgt ggtgaccgtg      660
ccctccagca acttcggcac ccagacctac acctgcaacg tagatcaca gcccagcaac      720
accaaggtgg acaagacagt tgagcgcaaa tgttgtgtcg agtgcccacc gtgcccagca      780
ccacctgtgg caggaccgtc agtcttcctc ttcccccaa aaccaagga caccctcatg      840
atctcccgga cccctgaggt cacgtgcgtg gtggtggacg tgagccacga agaccccag      900
gtccagttca actggtacgt ggacggcgtg gaggtgcata atgccaagac aaagccacgg      960
gaggagcagt tcaacagcac gttccgtgtg gtcagcgtcc tcaccgttgt gcaccaggac     1020
tggctgaacg gcaaggagta caagtgaag gtctccaaca aaggcctccc agccccatc     1080
gagaaaacca tctccaaaac caaagggcag ccccgagaac cacaggtgta caccctgccc     1140
ccatcccggg aggagatgac caagaaccag gtcagcctga cctgcctggt caaaggcttc     1200
taccacagcg acatcgccgt ggagtgggag agcaatgggc agccggagaa caactacaag     1260
accacacctc ccatgctgga ctccgacggc tccttcttcc tctacagcaa gctcaccgtg     1320
gacaagagca ggtggcagca ggggaacgtc ttctcatgct ccgtgatgca tgaggctctg     1380
cacaaccact acacgcagaa gagcctctcc ctgtctccgg gtaaa                       1425

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<210> 48
 <211> 475
 <212> PRT
 <213> Homo sapiens

<400> 48

Met Glu Phe Gly Leu Ser Trp Val Phe Leu Val Ala Leu Leu Arg Gly

SEQUENCE LISTING

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

SEQUENCE LISTING

210

215

220

Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn
225 230 235 240

Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro
245 250 255

Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro
260 265 270

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
275 280 285

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Asn
290 295 300

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
305 310 315 320

Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val
325 330 335

Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
340 345 350

Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys
355 360 365

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
370 375 380

Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
385 390 395 400

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
405 410 415

Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe

SEQUENCE LISTING

420

425

430

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
435 440 445

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
450 455 460

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
465 470 475

<210> 49

<211> 702

<212> DNA

<213> Homo sapiens

<400> 49

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atcacctgct ctggagataa attgggggaa agatatgcgt cttggtatca gcagaggcca      180
ggccagtccc ctgtactggt catctatcaa gatatcaagc ggccctcagg gatccctgag      240
cgattctctg gctccaactc tgggaacaca gccactctga ccatcagcgg gaccaggtct      300
atggatgagg ctgactatct ctgtcaggcg tggtagagca gcaccaatgt gcttttcggc      360
ggagggacca agctgaccgt cctaggtcag cccaaggctg cccctcgggt cactctgttc      420
ccgccctcct ctgaggagct tcaagccaac aaggccacac tgggtgtgtct cataagtac      480
ttctacccgg gagccgtgac agtggcctgg aaggcagata gcagccccgt caaggcggga      540
gtggagacca ccacaccctc caaacaagc aacaacaagt acgcggccag cagctatctg      600
agcctgacgc ctgagcagtg gaagtccac agaagctaca gctgccaggt cacgcatgaa      660
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<210> 50

<211> 234

<212> PRT

<213> Homo sapiens

<400> 50

SEQUENCE LISTING

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 5 10 15

Leu Arg Gly Ala Arg Cys Tyr Glu Leu Thr Gln Pro Pro Ser Val Ser
20 25 30

Val Ser Pro Gly Gln Thr Ala Thr Ile Thr Cys Ser Gly Asp Lys Leu
35 40 45

Gly Glu Arg Tyr Ala Ser Trp Tyr Gln Gln Arg Pro Gly Gln Ser Pro
50 55 60

Val Leu Val Ile Tyr Gln Asp Ile Lys Arg Pro Ser Gly Ile Pro Glu
65 70 75 80

Arg Phe Ser Gly Ser Asn Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser
85 90 95

Gly Thr Gln Ala Met Asp Glu Ala Asp Tyr Phe Cys Gln Ala Trp Tyr
100 105 110

Ser Ser Thr Asn Val Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
115 120 125

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

Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp
145 150 155 160

Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro
165 170 175

Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn
180 185 190

Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys
195 200 205

SEQUENCE LISTING

Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val
 210 215 220

Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
 225 230

<210> 51
 <211> 1398
 <212> DNA
 <213> Homo sapiens

<400> 51
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 tgtgcagcgt ctggattcac cttcagtagc tatggcatgc actgggtccg ccaggctcca 180
 ggcaaggggc tggagtgggt ggcagttata tggatatgctg aaagtaataa atactacgca 240
 gactccgtga agggccgatt caccatctcc agagacaatt ccaagaacac gctgtatctg 300
 caaatgaaca gcctgagagc cgaggacacg gctgtgtatt actgtgagag agcccaggag 360
 ggtatagccc ctgacgcttt tgatatctgg ggccaaggaa caatgggtcac cgtctcttca 420
 gcctccacca agggcccatc ggtcttcccc ctggcgccct gctccaggag cacctccgag 480
 agcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacggtgtcg 540
 tggaactcag gcgctctgac cagcggcgtg cacaccttcc cagctgtcct acagtcctca 600
 ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcaacttcgg caccagacc 660
 tacacctgca acgtagatca caagcccagc aacaccaagg tggacaagac agttgagcgc 720
 aaatgttgtg tcgagtgtcc accgtgtcca gcaccacctg tggcaggacc gtcagtcttc 780
 ctcttcccc caaaaccaa ggacaccctc atgatctccc ggaccctga ggtcacgtgc 840
 gtggtggtgg acgtgagcca cgaagacccc gaggtccagt tcaactggta cgtggacggc 900
 gtggaggtgc ataatgcaa gacaaagcca cgggaggagc agttcaacag cacgttccgt 960
 gtggtcagcg tcctcaccgt tgtgcaccag gactggctga acggcaagga gtacaagtgc 1020
 aaggtctcca acaaaggcct cccagcccc atcgagaaaa ccatctcaa aaccaaaggg 1080
 cagccccgag aaccacaggt gtacaccctg ccccatccc gggaggagat gaccaagaac 1140

SEQUENCE LISTING

caggtcagcc tgacctgcct ggtcaaaggc ttctacccca gcgacatcgc cgtggagtgg 1200
gagagcaatg ggcagccgga gaacaactac aagaccacac ctcccatgct ggactccgac 1260
ggctccttct tcctctacag caagctcacc gtggacaaga gcaggtggca gcaggggaac 1320
gtcttctcat gtcctgtgat gcatgaggct ctgcacaacc actacacgca gaagagcctc 1380
tccctgtctc cgggtaaa 1398

<210> 52
<211> 466
<212> PRT
<213> Homo sapiens

<400> 52

Met Glu Phe Gly Leu Ser Trp Val Phe Leu Val Ala Leu Leu Arg Gly
1 5 10 15

Val Gln Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln
20 25 30

Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Ser Ser Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ala Val Ile Trp Tyr Ala Glu Ser Asn Lys Tyr Tyr Ala
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
85 90 95

Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Ala Gln Glu Gly Ile Ala Pro Asp Ala Phe Asp
115 120 125

Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys

SEQUENCE LISTING

130

135

140

Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu
145 150 155 160

Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro
165 170 175

Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr
180 185 190

Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val
195 200 205

Val Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn
210 215 220

Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg
225 230 235 240

Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly
245 250 255

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
260 265 270

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
275 280 285

Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
290 295 300

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg
305 310 315 320

Val Val Ser Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys
325 330 335

Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu

SEQUENCE LISTING

340

345

350

Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
355 360 365

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
370 375 380

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
385 390 395 400

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met
405 410 415

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
420 425 430

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
435 440 445

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
450 455 460

Gly Lys
465

<210> 53
<211> 702
<212> DNA
<213> Homo sapiens

<400> 53
atgggggtcaa ccgccatcct tggcctcctc ctggctgtcc tgcagggagg gcgcgccgaa 60
attgtgttga cgagtcctcc aggcaccctg tctttgtctc caggggaaag agccaccctc 120
tcctgcaggg ccagtcagag tgtagcagc agctacttag cctggcacca gcagaaacct 180
ggccaggctc ccaggctcct catctatggg gcatccagca gggccactgg catcccagac 240
aggttcagtg gcagtggttc tgggacagac ttcactctca ccatcagcag actggagcct 300
gaagattttg cagtgtatta ctgtcagcag tatggtagct caccgtggac gttcggccaa 360

SEQUENCE LISTING

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gggaccaagg tggaaatcaa acgtacggtg gctgcaccat ctgtcttcat cttcccgcca      420
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat      480
cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag      540
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg      600
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc      660
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt                          702

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<210> 54
<211> 234
<212> PRT
<213> Homo sapiens

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<400> 54

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Met Gly Ser Thr Ala Ile Leu Gly Leu Leu Leu Ala Val Leu Gln Gly
1           5           10           15

```

```

Gly Arg Ala Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu
20           25           30

```

```

Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val
35           40           45

```

```

Ser Ser Ser Tyr Leu Ala Trp His Gln Gln Lys Pro Gly Gln Ala Pro
50           55           60

```

```

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

```

```

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser
85           90           95

```

```

Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly
100          105          110

```

```

Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
115          120          125

```


SEQUENCE LISTING

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
130 135 140

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
145 150 155 160

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
165 170 175

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
180 185 190

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
195 200 205

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
210 215 220

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230

<210> 55
<211> 1389
<212> DNA
<213> Homo sapiens

<400> 55
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gtgcagctat tggagtctgg gggaggcttg gtacagcctg ggggggtcct gagactctcc 120
tgtgcagcct ctggattcac ctttagcacc tatgtcatga gctgggtccg ccaggctcca 180
gggaaggggc tggagtgggt ctcaagtatt agtggttagtg gtcttggctc atactacgca 240
gactccgtga agggccggtt caccatctcc agagacaatt ccaagaacac gctgtatctg 300
caaatgaaca gcctgagagc cgaggacacg gccgtatatt actgtgcgaa agaggcccat 360
cggggggcct ttgactactg gggccaggga accctgggtca ccgtctcctc agctagcacc 420
aagggcccat cgggtcttccc cctggcgccc tgctccagga gcacctccga gagcacagcg 480
gccctgggct gcctgggtcaa ggactacttc cccgaaccgg tgacggtgtc gtggaactca 540

SEQUENCE LISTING

```

ggcgctctga ccagcggcgt gcacaccttc ccagctgtcc tacagtcctc aggactctac      600
tccctcagca gcgtggtgac cgtgccctcc agcaacttcg gcaccagac ctacacctgc      660
aacgtagatc acaagcccag caacaccaag gtggacaaga cagttgagcg caaatgttgt      720
gtcgagtgcc caccgtgccc agcaccacct gtggcaggac cgtcagtctt cctcttcccc      780
ccaaaacca aggacacct catgatctcc cggaccctg aggtcacgtg cgtggtggtg      840
gacgtgagcc acgaagacct cgaggtccag ttcaactggt acgtggacgg cgtggaggtg      900
cataatgcca agacaaagcc acgggaggag cagttcaaca gcacgttccg tgtggtcagc      960
gtcctcaccg ttgtgcacca ggactggctg aacggcaagg agtacaagtg caaggtctcc     1020
aaciaaggcc tcccagcccc catcgagaaa accatctcca aaaccaaagg gcagccccga     1080
gaaccacagg tgtacacct gccccatcc cgggaggaga tgaccaagaa ccaggtcagc     1140
ctgacctgcc tgggtcaaagg cttctacccc agcgacatcg ccgtggagtg ggagagcaat     1200
gggcagccgg agaacaacta caagaccaca cctcccatgc tggactccga cggctccttc     1260
ttcctctaca gcaagctcac cgtggacaag agcaggtggc agcaggggaa cgtcttctca     1320
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ccgggtaaa                                     1389

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<210> 56
 <211> 463
 <212> PRT
 <213> Homo sapiens

<400> 56

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Met Gly Ser Thr Ala Ile Leu Gly Leu Leu Leu Ala Val Leu Gln Gly
1           5           10           15

```

```

Gly Arg Ala Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln
          20           25           30

```

```

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
      35           40           45

```

```

Ser Thr Tyr Val Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu

```

SEQUENCE LISTING

50

55

60

Glu Trp Val Ser Ser Ile Ser Gly Ser Gly Leu Gly Ser Tyr Tyr Ala
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
85 90 95

Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Lys Glu Ala His Arg Gly Pro Phe Asp Tyr Trp Gly
115 120 125

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

Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala
145 150 155 160

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
165 170 175

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
180 185 190

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
195 200 205

Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His
210 215 220

Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys
225 230 235 240

Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val
245 250 255

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr

SEQUENCE LISTING

260

265

270

Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
275 280 285

Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
290 295 300

Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser
305 310 315 320

Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
325 330 335

Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile
340 345 350

Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
355 360 365

Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
370 375 380

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
385 390 395 400

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser
405 410 415

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
420 425 430

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
435 440 445

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

<210> 57

SEQUENCE LISTING

<211> 721
<212> DNA
<213> Homo sapiens

<400> 57
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gatattgtga tgaccagac tccactctcc tcacctgtca cccttgga gccggcctcc 120
atctcctgca ggtctagtca aagcctcgta cacagtgatg gaaacaccta cttgagttgg 180
cttcagcaga ggccaggcca gcctccaaga ctcctaattt ataagaaatt taaccggttc 240
tctggggctcc cagacagatt cagtggcagt ggggcaggga cagatttcac actgaaaatc 300
agcagggtgg aagctgagga tgtcgggggtt tattactgca tgcaagctac acaaattcct 360
ctcactttcg gccctgggac caaagtggat atcaaacgaa ctgtggctgc accatctgtc 420
ttcatcttcc cgccatctga tgagcagttg aaatctggaa ctgcctctgt tgtgtgcctg 480
ctgaataact tctatcccag agaggccaaa gtacagtgga aggtggataa cgccctccaa 540
tcgggtaact cccaggagag tgtcacagag caggacagca aggacagcac ctacagcctc 600
agcagcacc tgacgctgag caaagcagac tacgagaaac acaaagtcta cgcctgcgaa 660
gtcacccatc agggcctgag ctcgcccgtc acaaagagct tcaacagggg agagtgttga 720
g 721

<210> 58
<211> 239
<212> PRT
<213> Homo sapiens

<400> 58
Met Arg Leu Leu Ala Gln Leu Leu Gly Leu Leu Met Leu Trp Val Pro
1 5 10 15
Gly Ser Ser Gly Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro
20 25 30
Val Thr Leu Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser
35 40 45
Leu Val His Ser Asp Gly Asn Thr Tyr Leu Ser Trp Leu Gln Gln Arg

SEQUENCE LISTING

50

55

60

Pro Gly Gln Pro Pro Arg Leu Leu Ile Tyr Lys Lys Phe Asn Arg Phe
65 70 75 80

Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe
85 90 95

Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr
100 105 110

Cys Met Gln Ala Thr Gln Ile Pro Leu Thr Phe Gly Pro Gly Thr Lys
115 120 125

Val Asp Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro
130 135 140

Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu
145 150 155 160

Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp
165 170 175

Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp
180 185 190

Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys
195 200 205

Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln
210 215 220

Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 59

<211> 1416

<212> DNA

<213> Homo sapiens

SEQUENCE LISTING

<400> 59

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gtgcagctgg tggagtctgg gggaggcgtg gtccagcctg ggaggtccct gagactctcc      120
tgtgcagcgt ctggattcac cttcagtttc tatggcatgc actgggtccg ccaggctcca      180
ggcaaggggc tggagtgggt ggcagttata tggatatgat gaagtaataa atactatgca      240
gactccgtga agggccgatt caccatctcc agagacaatt ccaagaacac gctgtatctg      300
caaatgaaca gcctgagagc cgaggacacg gctgtgtatt actgtgcgag agggggttat      360
gattacgttt gggggagtta tcgccgtaac tccgactttg actactgggg ccagggaacc      420
ctggtcaccg tctctagtgc ctccaccaag ggcccatcgg tcttccccct ggcgccctgc      480
tccaggagca cctccgagag cacagcggcc ctgggctgcc tgggtcaagga ctacttcccc      540
gaaccggtga cgggtgtcgt gaactcaggc gctctgacca gcggcgtgca caccttccca      600
gctgtcctac agtcctcagg actctactcc ctcagcagcg tggtgaccgt gccctccagc      660
aacttcggca cccagaccta cacctgcaac gtagatcaca agcccagcaa caccaaggtg      720
gacaagacag ttgagcgtga atgttgtgtc gagggtccac cgtgcccagc accacctgtg      780
gcaggaccgt cagtcttctt cttcccccca aaaccaagg acaccctcat gatctcccgg      840
acccctgagg tcacgtgcgt ggtggtggac gtgagccacg aagaccccga ggtccagttc      900
aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccacg ggaggagcag      960
ttcaacagca cgttccgtgt ggtcagcgtc ctcaccgttg tgcaccagga ctggctgaac     1020
ggcaaggagt acaagtgtga ggtctccaac aaaggcctcc cagcccccat cgagaaaacc     1080
atctccaaaa ccaaagggca gccccgagaa ccacaggtgt acaccctgcc cccatcccgg     1140
gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctaccccagc     1200
gacatcgccg tggagtggga gagcaatggg cagccggaga acaactacaa gaccacacct     1260
cccatgctgg actccgacgg ctcttctctt ctctacagca agctcaccgt ggacaagagc     1320
aggtggcagc aggggaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac     1380
tacacgcaga agagcctctc cctgtctccg ggtaaa                                1416

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<210> 60

<211> 472

SEQUENCE LISTING

<212> PRT

<213> Homo sapiens

<400> 60

Met Glu Phe Gly Leu Ser Trp Val Phe Leu Val Ala Leu Leu Arg Gly
1 5 10 15

Val Gln Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln
20 25 30

Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Ser Phe Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
85 90 95

Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Gly Gly Tyr Asp Tyr Val Trp Gly Ser Tyr Arg
115 120 125

Arg Asn Ser Asp Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val
130 135 140

Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys
145 150 155 160

Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys
165 170 175

Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu
180 185 190

SEQUENCE LISTING

Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu
195 200 205

Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Asn Phe Gly Thr
210 215 220

Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val
225 230 235 240

Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro
245 250 255

Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
260 265 270

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
275 280 285

Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val
290 295 300

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
305 310 315 320

Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val His Gln
325 330 335

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly
340 345 350

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro
355 360 365

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
370 375 380

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
385 390 395 400

SEQUENCE LISTING

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
405 410 415

Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
420 425 430

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
435 440 445

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
450 455 460

Ser Leu Ser Leu Ser Pro Gly Lys
465 470

<210> 61
<211> 705
<212> DNA
<213> Homo sapiens

<400> 61
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gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 120
ctctcctgca gggccagtca gagtgttgac agcaacttag cctgggtaccg gcagaaacct 180
ggccaggctc ccaggctcct catctatggg gcatccacca gggccactgg tatcccagcc 240
aggttcagtg gcagtgggtc tgggactgag ttcactctca ccatcagcag cctgcagtct 300
gaagattttg cagtttatta ctgtcagcag tatattaact ggcctccgat caccttcggc 360
caagggacac gactggagat taaacgaact gtggctgcac catctgtctt catcttccc 420
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc 480
tatcccagag aggccaaagt acagtggaag gtggataacg ccctccaatc gggtaactcc 540
caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg 600
acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt caccatcag 660
ggcctgagct cgcccgtcac aaagagcttc aacaggggag agtgt 705

SEQUENCE LISTING

<210> 62
 <211> 235
 <212> PRT
 <213> Homo sapiens

<400> 62

Met Glu Ala Pro Ala Gln Leu Leu Phe Leu Leu Leu Trp Leu Pro
 1 5 10 15

Asp Thr Thr Gly Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser
 20 25 30

Val Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser
 35 40 45

Val Asp Ser Asn Leu Ala Trp Tyr Arg Gln Lys Pro Gly Gln Ala Pro
 50 55 60

Arg Leu Leu Ile Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala
 65 70 75 80

Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser
 85 90 95

Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ile
 100 105 110

Asn Trp Pro Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
 115 120 125

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
 130 135 140

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
 145 150 155 160

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
 165 170 175

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser

SEQUENCE LISTING

180

185

190

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
195 200 205

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
210 215 220

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 63

<211> 1395

<212> DNA

<213> Homo sapiens

<400> 63

atgaaacacc tgtggttctt ctttctcctg gtggcagctc ccagatgggt cctgtcccag	60
gtgcagctgc aggagtcggg cccaggactg gtgaagcctt cggagaccct gtcctcacc	120
tgcactgtct ctgggtggctc catcagtatt tactactgga gctggatccg gcagccccca	180
gggaagggac tggagtggat tgggtatgtc tattacagtg ggagcaccaa ttacaacccc	240
tccctcaaga gtcgagtcac catatcagta gacacgtcca agaaccagtt ctccctgaag	300
ctgaactctg tgaccgctgc ggacacggcc gtgtattact gtgcgagagg gggatacgat	360
ttttggagtg gttattttga ctactggggc cagggaaccc tggtcaccgt ctctagtgcc	420
tccaccaagg gcccatcggg cttccccctg gcgccctgct ccaggagcac ctccgagagc	480
acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg	540
aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtcctcagga	600
ctctactccc tcagcagcgt ggtgaccgtg ccctccagca acttcggcac ccagacctac	660
acctgcaacg tagatcacia gccagcaac accaaggtgg acaagacagt tgagcgcaaa	720
tgttggtgtcg agtgcccacc gtgcccagca ccacctgtgg caggaccgtc agtcttcctc	780
ttccccccaa aacccaagga caccctcatg atctcccgga cccctgaggt cacgtgcgtg	840
gtgggtggacg tgagccacga agaccccgag gtccagttca actggtacgt ggacggcgtg	900
gaggtgcata atgccaagac aaagccacgg gaggagcagt tcaacagcac gttccgtgtg	960

SEQUENCE LISTING

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gtcagcgtcc tcaccgttgt gcaccaggac tggctgaacg gcaaggagta caagtgaag      1020
gtctccaaca aaggcctccc agcccccatc gagaaaacca tctccaaaac caaagggcag      1080
ccccgagaac cacaggtgta caccctgccc ccatcccggg aggagatgac caagaaccag      1140
gtcagcctga cctgcctggt caaaggcttc taccacagcg acatcgccgt ggagtgggag      1200
agcaatgggc agccggagaa caactacaag accacacctc ccatgctgga ctccgacggc      1260
tccttcttcc tctacagcaa gctcaccgtg gacaagagca ggtggcagca ggggaacgtc      1320
ttctcatgct ccgtgatgca tgaggctctg cacaaccact acacgcagaa gagcctctcc      1380
ctgtctccgg gtaaa                                                    1395

```

```

<210> 64
<211> 465
<212> PRT
<213> Homo sapiens

```

```

<400> 64

```

```

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1           5           10           15

```

```

Val Leu Ser Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys
20           25           30

```

```

Pro Ser Glu Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile
35           40           45

```

```

Ser Ile Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu
50           55           60

```

```

Glu Trp Ile Gly Tyr Val Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro
65           70           75           80

```

```

Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln
85           90           95

```

```

Phe Ser Leu Lys Leu Asn Ser Val Thr Ala Ala Asp Thr Ala Val Tyr
100          105          110

```

SEQUENCE LISTING

Tyr Cys Ala Arg Gly Gly Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr
115 120 125

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
130 135 140

Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser
145 150 155 160

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
165 170 175

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
180 185 190

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
195 200 205

Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val
210 215 220

Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys
225 230 235 240

Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro
245 250 255

Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
260 265 270

Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
275 280 285

Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
290 295 300

Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val
305 310 315 320

SEQUENCE LISTING

Val Ser Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu
325 330 335

Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys
340 345 350

Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
355 360 365

Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr
370 375 380

Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
385 390 395 400

Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu
405 410 415

Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
420 425 430

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
435 440 445

Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
450 455 460

Lys
465

<210> 65
<211> 723
<212> DNA
<213> Homo sapiens

<400> 65
atggtgctgc agaccaggt gtttattagc ctgctgctgt ggattagcgg cgcgtatggc 60
gacatcgtgc tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 120
atcaactgca agtccagcca gagtatttta tacagctcca gcaatgagaa cttcttaact 180

SEQUENCE LISTING

```

tggtaccagc agaaaccagg acagcctcct aagctgctca ttactgggc atctaccgg 240
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 300
atcagcagcc tgcagcctga agatgtggca gtttattact gtcagcaata ttttagtggt 360
tttcggacgt tcggccaagg gaccagggtg gaaatcaaac gtacgggtggc tgcaccatct 420
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 480
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc 540
caatcgggta actcccagga gagtgtcaca gacgaggaca gcaaggacag cacctacagc 600
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 660
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt 720
tag 723

```

```

<210> 66
<211> 240
<212> PRT
<213> Homo sapiens

```

```

<400> 66

```

```

Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
1           5           10          15

```

```

Gly Ala Tyr Gly Asp Ile Val Leu Thr Gln Ser Pro Asp Ser Leu Ala
          20          25          30

```

```

Val Ser Leu Gly Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser
          35          40          45

```

```

Ile Leu Tyr Ser Ser Ser Asn Glu Asn Phe Leu Thr Trp Tyr Gln Gln
50          55          60

```

```

Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg
65          70          75          80

```

```

Glu Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp
          85          90          95

```


SEQUENCE LISTING

Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Val Ala Val Tyr
100 105 110

Tyr Cys Gln Gln Tyr Phe Ser Val Phe Arg Thr Phe Gly Gln Gly Thr
115 120 125

Arg Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe
130 135 140

Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys
145 150 155 160

Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val
165 170 175

Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln
180 185 190

Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser
195 200 205

Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His
210 215 220

Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235 240

<210> 67
<211> 1395
<212> DNA
<213> Homo sapiens

<400> 67
atggattgga cctggcgtat tctgtttctg gtggcggcgg cgaccggcgc gcatagccag 60
gtgcagctgg tgcagtctgg ggctgaggtg aagaagcctg gggcctcagt gaaggtctcc 120
tgcaaggctt ctggatacac cttcaccggc tactatatac actgggtgcg acaggcccct 180
ggacaagggc ttgagtggat gggatggatc aaccctaaca gtggtggcac aaactctgca 240
cagaagtttc ggggcagggt caccatgacc agggacacgt ccatcagcac agcctacatg 300

SEQUENCE LISTING

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gagctgagca ggctgagatc tgacgacacg gccgtgtatt actgtgcgcg agagggtgga      360
tacagctatg gttactttga ctactggggc cagggaaccc tggtcaccgt ctctcagct      420
agcaccaagg gcccatcggc cttccccctg gcgccctgct ccaggagcac ctccgagagc      480
acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg      540
aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtcctcagga      600
ctctactccc tcagcagcgt ggtgaccgtg ccctccagca acttcggcac ccagacctac      660
acctgcaacg tagatcaciaa gcccagcaac accaaggtgg acaagacagt tgagcgcaaa      720
tgttgtgtcg agtgcccacc gtgcccagca ccacctgtgg caggaccgtc agtcttcctc      780
ttccccccaa aaccaagga caccctcatg atctcccgga cccctgaggt cacgtgcgtg      840
gtgggtggacg tgagccacga agaccccgag gtccagttca actggtacgt ggacggcgtg      900
gaggtgcata atgccaagac aaagccacgg gaggagcagt tcaacagcac gttccgtgtg      960
gtcagcgtcc tcaccgttgt gcaccaggac tggctgaacg gcaaggagta caagtgaag     1020
gtctccaaca aaggcctccc agcccccatc gagaaaacca tctccaaaac caaagggcag     1080
ccccgagaac cacaggtgta caccctgccc ccatcccggg aggagatgac caagaaccag     1140
gtcagcctga cctgcctggt caaaggcttc taccacagcg acatcgccgt ggagtgggag     1200
agcaatgggc agccggagaa caactacaag accacacctc ccatgctgga ctccgacggc     1260
tccttcttcc tctacagcaa gctcaccgtg gacaagagca ggtggcagca ggggaacgtc     1320
ttctcatgct ccgtgatgca tgaggctctg cacaaccact acacgcagaa gagcctctcc     1380
ctgtctccgg gtaaa                                                    1395

```

```

<210> 68
<211> 465
<212> PRT
<213> Homo sapiens

```

```

<400> 68

```

```

Met Asp Trp Thr Trp Arg Ile Leu Phe Leu Val Ala Ala Ala Thr Gly
1           5           10          15

```

```

Ala His Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys

```

SEQUENCE LISTING

20

25

30

Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
35 40 45

Thr Gly Tyr Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
50 55 60

Glu Trp Met Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Ser Ala
65 70 75 80

Gln Lys Phe Arg Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser
85 90 95

Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Glu Gly Gly Tyr Ser Tyr Gly Tyr Phe Asp Tyr
115 120 125

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
130 135 140

Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser
145 150 155 160

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
165 170 175

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
180 185 190

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
195 200 205

Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val
210 215 220

Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys

SEQUENCE LISTING

225		230		235		240
Cys	Cys	Val	Glu	Cys	Pro	Pro
			245			
				Pro	Ala	Pro
				250		
					Pro	Val
						Ala
						Gly
						255
Ser	Val	Phe	Leu	Phe	Pro	Pro
			260			
				Lys	Pro	Lys
				265		
				Asp	Thr	Leu
						Met
						270
						Ile
						Ser
Arg	Thr	Pro	Glu	Val	Thr	Cys
						Val
						Val
						Val
						Asp
						Val
						Ser
						His
						Glu
						Asp
						285
Pro	Glu	Val	Gln	Phe	Asn	Trp
						Tyr
						Val
						Asp
						Gly
						Val
						Glu
						Val
						His
						Asn
						290
						295
						300
Ala	Lys	Thr	Lys	Pro	Arg	Glu
						Gln
						Phe
						Asn
						Ser
						Thr
						Phe
						Arg
						Val
						305
						310
						315
						320
Val	Ser	Val	Leu	Thr	Val	Val
						His
						Gln
						Asp
						Trp
						Leu
						Asn
						Gly
						Lys
						Glu
						325
						330
						335
Tyr	Lys	Cys	Lys	Val	Ser	Asn
						Lys
						Gly
						Leu
						Pro
						Ala
						Pro
						Ile
						Glu
						Lys
						340
						345
						350
Thr	Ile	Ser	Lys	Thr	Lys	Gly
						Gln
						Pro
						Arg
						Glu
						Pro
						Gln
						Val
						Tyr
						Thr
						355
						360
						365
Leu	Pro	Pro	Ser	Arg	Glu	Glu
						Met
						Thr
						Lys
						Asn
						Gln
						Val
						Ser
						Leu
						Thr
						370
						375
						380
Cys	Leu	Val	Lys	Gly	Phe	Tyr
						Pro
						Ser
						Asp
						Ile
						Ala
						Val
						Glu
						Trp
						Glu
						385
						390
						395
Ser	Asn	Gly	Gln	Pro	Glu	Asn
						Asn
						Tyr
						Lys
						Thr
						Thr
						Pro
						Pro
						Met
						Leu
						405
						410
						415
Asp	Ser	Asp	Gly	Ser	Phe	Phe
						Leu
						Tyr
						Ser
						Lys
						Leu
						Thr
						Val
						Asp
						Lys
						420
						425
						430
Ser	Arg	Trp	Gln	Gln	Gly	Asn
						Val
						Phe
						Ser
						Cys
						Ser
						Val
						Met
						His
						Glu

SEQUENCE LISTING

435

440

445

Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
450 455 460

Lys
465

<210> 69
<211> 708
<212> DNA
<213> Homo sapiens

<400> 69
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agggtgtgaca tccagatgac ccagtcctcca tcctccctgt ctgcatctgt aggagacaga 120
gtcaccatca cttgccgggc aagtcagggc attagaaatg atttaggctg gtatcagcag 180
aaaccaggga aagcccctaa ggcctgatc tatgctgcat ccagtttgca aagtggggtc 240
ccatcaaggt tcagcggcag tggatctggg acagaattca ctctcacaat cagcagtgtg 300
cagcctgaag attttgtaac ttattactgt ctacagcata atagtaacct tctcactttc 360
ggcggaggga ccaaggtgga gatcaaacga actgtggctg caccatctgt cttcatcttc 420
ccgccatctg atgagcagtt gaaatctgga actgcctctg ttgtgtgcct gctgaataac 480
ttctatccca gagaggccaa agtacagtgg aaggtggata acgccctcca atcgggtaac 540
tcccaggaga gtgtcacaga gcaggacagc aaggacagca cctacagcct cagcagcacc 600
ctgacgctga gcaaagcaga ctacagagaaa cacaaagtct acgcctgcga agtcacccat 660
cagggcctga gctcgcccggt cacaaagagc ttcaacaggg gagagtgt 708

<210> 70
<211> 236
<212> PRT
<213> Homo sapiens

<400> 70

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 5 10 15

SEQUENCE LISTING

Phe Pro Gly Ala Arg Cys Asp Ile Gln Met Thr Gln Ser Pro Ser Ser
20 25 30

Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser
35 40 45

Gln Gly Ile Arg Asn Asp Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys
50 55 60

Ala Pro Lys Arg Leu Ile Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val
65 70 75 80

Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
85 90 95

Ile Ser Ser Val Gln Pro Glu Asp Phe Val Thr Tyr Tyr Cys Leu Gln
100 105 110

His Asn Ser Asn Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile
115 120 125

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
130 135 140

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
145 150 155 160

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
165 170 175

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
180 185 190

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
195 200 205

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
210 215 220

SEQUENCE LISTING

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 71
<211> 1419
<212> DNA
<213> Homo sapiens

<400> 71
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gtgcagctgg tggagtctgg gggaggcgtg gtccagcctg ggaggtccct gagactctcc 120
tgtgcagcgt ctggattcac cttcagtagc tatggcatgc actgggtccg ccaggctcca 180
ggcaaggggc tggagtgggt ggcagttatg tggatatgatg gaagtaataa agactatgta 240
gactccgtga agggccgatt caccatctcc agagacaatt ccaagaacac gctgtatctg 300
caaatgaacc gcctgagagc cgaggacacg gctgtgtatt actgtgagag agaaaaagat 360
cattacgaca ttttgactgg ttataactac tactacggtc tggacgtctg gggccaaggg 420
accacgggtca ccgtctcctc agcctccacc aaggggccat cggtcttccc cctggcgccc 480
tgctccagga gcacctccga gagcacagcg gccctgggct gcctgggtcaa ggactacttc 540
cccgaaccgg tgacgggtgtc gtggaactca ggcgctctga ccagcggcgt gcacaccttc 600
ccagctgtcc tacagtctc aggactctac tccctcagca gcgtgggtgac cgtgccctcc 660
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gtggcaggac cgtcagtctt cctcttcccc caaaaccca aggacaccct catgatctcc 840
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cagttcaaca gcacgttccg tgtgggtcagc gtcctcaccg ttgtgcacca ggactggctg 1020
aacggcaagg agtacaagt caaggtctcc aacaaaggcc tcccagcccc catcgagaaa 1080
accatctcca aaaccaaagg gcagccccga gaaccacagg tgtacacct gcccccattcc 1140
cgggaggaga tgaccaagaa ccaggtcagc ctgacctgcc tgggtcaaagg cttctacccc 1200
agcgacatcg ccgtggagtg ggagagcaat gggcagccgg agaacaacta caagaccaca 1260

SEQUENCE LISTING

cctcccatgc tggactccga cggctccttc ttcctctaca gcaagctcac cgtggacaag 1320
 agcaggtggc agcaggggaa cgtcttctca tgctccgtga tgcattgaggc tctgcacaac 1380
 cactacacgc agaagagcct ctccctgtct ccgggtaaa 1419

<210> 72
 <211> 473
 <212> PRT
 <213> Homo sapiens

<400> 72

Met Glu Phe Gly Leu Ser Trp Val Phe Leu Val Ala Leu Leu Arg Gly
 1 5 10 15

Val Gln Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln
 20 25 30

Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 35 40 45

Ser Ser Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
 50 55 60

Glu Trp Val Ala Val Met Trp Tyr Asp Gly Ser Asn Lys Asp Tyr Val
 65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
 85 90 95

Thr Leu Tyr Leu Gln Met Asn Arg Leu Arg Ala Glu Asp Thr Ala Val
 100 105 110

Tyr Tyr Cys Ala Arg Glu Lys Asp His Tyr Asp Ile Leu Thr Gly Tyr
 115 120 125

Asn Tyr Tyr Tyr Gly Leu Asp Val Trp Gly Gln Gly Thr Thr Val Thr
 130 135 140

Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro

SEQUENCE LISTING

145		150		155		160
Cys	Ser	Arg	Ser	Thr	Ser	Glu
				165		
					Ala	Ala
					170	
					Leu	Gly
					Cys	Leu
						175
Lys	Asp	Tyr	Phe	Pro	Glu	Pro
			180			
						Val
						185
						Thr
						Val
						Ser
						Trp
						Asn
						Ser
						Gly
						Ala
Leu	Thr	Ser	Gly	Val	His	Thr
						195
						Phe
						200
						Pro
						Ala
						Val
						Leu
						Gln
						205
						Ser
						Ser
						Gly
Leu	Tyr	Ser	Leu	Ser	Ser	Val
						210
						Val
						215
						Val
						Thr
						Val
						Pro
						Ser
						Ser
						Asn
						Phe
						Gly
Thr	Gln	Thr	Tyr	Thr	Cys	Asn
						225
						Val
						230
						Asp
						His
						Lys
						235
						Pro
						Ser
						Asn
						Thr
						Lys
						240
Val	Asp	Lys	Thr	Val	Glu	Arg
						245
						Lys
						Cys
						Cys
						250
						Val
						Glu
						Cys
						Pro
						Pro
						Cys
						255
Pro	Ala	Pro	Pro	Val	Ala	Gly
						260
						Pro
						Ser
						Val
						Phe
						Leu
						Phe
						Pro
						Pro
						Lys
						270
Pro	Lys	Asp	Thr	Leu	Met	Ile
						275
						Ser
						Arg
						Thr
						Pro
						Glu
						Val
						285
Val	Val	Asp	Val	Ser	His	Glu
						290
						Asp
						Pro
						Glu
						Val
						Gln
						300
						Phe
						Asn
						Trp
						Tyr
Val	Asp	Gly	Val	Glu	Val	His
						305
						Asn
						Ala
						Lys
						Thr
						Lys
						315
						Lys
						Pro
						Arg
						Glu
						Glu
						320
Gln	Phe	Asn	Ser	Thr	Phe	Arg
						325
						Val
						Val
						Ser
						330
						Leu
						Thr
						Val
						Val
						His
						335
Gln	Asp	Trp	Leu	Asn	Gly	Lys
						340
						Glu
						Tyr
						Lys
						Cys
						Lys
						Val
						Ser
						Asn
						Lys
						350
Gly	Leu	Pro	Ala	Pro	Ile	Glu
						Lys
						Thr
						Ile
						Ser
						Lys
						Thr
						Lys
						Gly
						Gln

SEQUENCE LISTING

355

360

365

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met
370 375 380

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
385 390 395 400

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
405 410 415

Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu
420 425 430

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
435 440 445

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
450 455 460

Lys Ser Leu Ser Leu Ser Pro Gly Lys
465 470

<210> 73
<211> 705
<212> DNA
<213> Homo sapiens

<400> 73
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ctctcctgca gggccagtca gtatattagc aacacctatt tagcctgggt ccagcagaaa 180
cctggccagg ctcccaggct cctcatctat ggtgcagcca ccagggccac tggcatccca 240
gacaggttca gtggcagtgg gtctgggaca gacttcactt tcaccatcag cagactggag 300
cctgaagatt ttgcagtgtt ttactgtcag cagtatggta gctcaccgtg gacgttcggc 360
caagggacca cgggtgaaat caaacgtacg gtggctgcac catctgtctt catcttcccg 420
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc 480

SEQUENCE LISTING

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tatcccagag aggccaaagt acagtggaag gtggataacg ccctccaatc gggtaactcc      540
caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg      600
acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt cacccatcag      660
ggcctgagct cgcccgtcac aaagagcttc aacaggggag agtgt                        705
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<210> 74
<211> 235
<212> PRT
<213> Homo sapiens
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<400> 74
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```
Met Glu Thr Pro Ala Gln Leu Leu Phe Leu Leu Leu Leu Trp Leu Pro
1          5          10          15
```

```
Asp Thr Thr Gly Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser
          20          25          30
```

```
Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Tyr
          35          40          45
```

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

```
Pro Arg Leu Leu Ile Tyr Gly Ala Ala Thr Arg Ala Thr Gly Ile Pro
65          70          75          80
```

```
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile
          85          90          95
```

```
Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr
          100          105          110
```

```
Gly Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Thr Val Glu Ile Lys
          115          120          125
```

```
Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
          130          135          140
```

SEQUENCE LISTING

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
145 150 155 160

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
165 170 175

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
180 185 190

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
195 200 205

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
210 215 220

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 75
<211> 1389
<212> DNA
<213> Homo sapiens

<400> 75
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gtgcagttgg tgcagtctgg ggctgaggtg aagaagcctg gggcctcagt gaaggtctcc 120
tgcaaggctt ctggatacac cttcaccggc tactatatgc actgggtgcg acaggcccct 180
ggacaagggc ttgagtggat gggatggatc aaccctaaca gtggtggcac aaactatgca 240
cagaggtttc ggggcagggt caccatgacc agggacacgt ccatcagcac agcctacatg 300
gaactgagca ggctgagatc tgacgacacg gccgtgtatt actgtgagag agccccgtat 360
gactggacct ttgactactg gggccaggga accctggtca ccgtctcctc agctagcacc 420
aaggggcccat cggctcttccc cctggcgccc tgctccagga gcacctccga gagcacagcg 480
gccctgggct gcctgggtcaa ggactacttc cccgaaccgg tgacggtgtc gtggaactca 540
ggcgtcttga ccagcggcgt gcacaccttc ccagctgtcc tacagtcctc aggactctac 600
tccctcagca gcgtggtgac cgtgccctcc agcaacttcg gcaccagac ctacacctgc 660

SEQUENCE LISTING

```

aacgtagatc acaagcccag caacaccaag gtggacaaga cagttgagcg caaatgttgt      720
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ccaaaaccca aggacaccct catgatctcc cggacccctg aggtcacgtg cgtggtggtg      840
gacgtgagcc acgaagaccc cgaggtccag ttcaactggt acgtggacgg cgtggaggtg      900
cataatgcca agacaaagcc acgggaggag cagttcaaca gcacgttccg tgtggtcagc      960
gtcctcaccg ttgtgcacca ggactggctg aacggcaagg agtacaagtg caaggtctcc     1020
aacaaaggcc tcccagcccc catcgagaaa accatctcca aaaccaaagg gcagccccga     1080
gaaccacagg tgtacaccct gccccatcc cgggaggaga tgaccaagaa ccaggtcagc     1140
ctgacctgcc tgggtcaaagg cttctacccc agcgacatcg ccgtggagtg ggagagcaat     1200
gggcagccgg agaacaacta caagaccaca cctcccatgc tggactccga cggctccttc     1260
ttcctctaca gcaagctcac cgtggacaag agcaggtggc agcaggggaa cgtcttctca     1320
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ccgggtaaa                                                                1389

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<210> 76
<211> 463
<212> PRT
<213> Homo sapiens

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<400> 76

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```

Met Asp Trp Thr Trp Arg Ile Leu Phe Leu Val Ala Ala Ala Thr Gly
1           5           10          15

```

```

Ala His Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
          20          25          30

```

```

Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
          35          40          45

```

```

Thr Gly Tyr Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
          50          55          60

```

```

Glu Trp Met Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala

```

SEQUENCE LISTING

65		70		75		80
Gln Arg Phe Arg Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser						
		85		90		95
Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val						
		100		105		110
Tyr Tyr Cys Ala Arg Ala Pro Tyr Asp Trp Thr Phe Asp Tyr Trp Gly						
		115		120		125
Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser						
		130		135		140
Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala						
145		150		155		160
Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val						
		165		170		175
Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala						
		180		185		190
Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val						
		195		200		205
Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His						
		210		215		220
Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys						
225		230		235		240
Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val						
		245		250		255
Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr						
		260		265		270
Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu						

SEQUENCE LISTING

275

280

285

Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
290 295 300

Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser
305 310 315 320

Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
325 330 335

Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile
340 345 350

Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
355 360 365

Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
370 375 380

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
385 390 395 400

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser
405 410 415

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
420 425 430

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
435 440 445

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

<210> 77

<211> 708

<212> DNA

<213> Homo sapiens

SEQUENCE LISTING

<400> 77

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gtcaccatca cttgtcgggc gagtcagggt attagcaact ggtagcctg gtatcagcag      180
aaaccaggga cagcccctaa actcctgata tatgctgcat ccagtttgca aagtgggggtc      240
ccatcaaggt tcagcggcag tggatctggg acagatttca ctctcaccat cagcagcctg      300
cagcctgaag attttgcaac ttactattgt caacaggcta acagtttccc attcactttc      360
ggccctggga ccaaagtga tatcaaactg acggtggctg caccatctgt cttcatcttc      420
ccgccatctg atgagcagtt gaaatctgga actgcctctg ttgtgtgcct gctgaataac      480
ttctatccca gagaggccaa agtacagtgg aaggtggata acgccctcca atcgggtaac      540
tcccaggaga gtgtcacaga gcaggacagc aaggacagca cctacagcct cagcagcacc      600
ctgacgctga gcaaagcaga ctacgagaaa cacaaagtct acgcctgcga agtcacccat      660
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<210> 78

<211> 236

<212> PRT

<213> Homo sapiens

<400> 78

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Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1           5           10          15

```

```

Leu Arg Gly Ala Arg Cys Asp Ile Gln Met Thr Gln Ser Pro Ser Ser
          20          25          30

```

```

Val Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser
          35          40          45

```

```

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

```

```

Ala Pro Lys Leu Leu Ile Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val
65           70           75          80

```


SEQUENCE LISTING

Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
85 90 95

Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
100 105 110

Ala Asn Ser Phe Pro Phe Thr Phe Gly Pro Gly Thr Lys Val Asp Ile
115 120 125

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
130 135 140

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
145 150 155 160

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
165 170 175

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
180 185 190

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
195 200 205

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
210 215 220

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 79
<211> 1407
<212> DNA
<213> Homo sapiens

<400> 79
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cgctgtcagg tgcaattggt gcagtctggg actgaggtga agaagcctgg ggcctcaatg 120
aaggtttcct gcaaggcatc tggatacacc ttcaccagct attatatgca ctgggtgcga 180

SEQUENCE LISTING

caggcccctg gacaagggct tgagtggatg ggaataatca accctagtgg tgatagcaca	240
agctacgcac agaagttcca gggcagagtc accatgacca gggacacgtc cacgaacaca	300
gtctacatgg agctgagcag cctgagatct gaggacacgg ccatgtatta ctgtgcgaga	360
gatgtagagg ttcggggaat ttctcacttt gactactggg gccagggaac cctggtcacc	420
gtctctagtg cctccaccaa gggcccatcg gtcttcccc tggcgccctg ctccaggagc	480
acctccgaga gcacagcggc cctgggctgc ctgggtcaagg actacttccc cgaaccggtg	540
acgggtgtcgt ggaactcagg cgctctgacc agcggcgtgc acaccttccc agctgtccta	600
cagtcctcag gactctactc cctcagcagc gtgggtgaccg tgccctccag caacttcggc	660
acccagacct acacctgcaa cgtagatcac aagcccagca acaccaaggt ggacaagaca	720
gttgagcgca aatgttgtgt cgagtgccca ccgtgcccag caccacctgt ggcaggaccg	780
tcagtcttcc tcttcccccc aaaacccaag gacaccctca tgatctcccg gaccctgag	840
gtcacgtgcg tgggtgggtgga cgtgagccac gaagaccccg aggtccagtt caactggtac	900
gtggacggcg tggaggtgca taatgccaag acaaagccac gggaggagca gttcaacagc	960
acgttccgtg tggtcagcgt cctcaccgtt gtgcaccagg actggctgaa cggcaaggag	1020
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accaaagggc agccccgaga accacaggtg tacaccctgc ccccatcccg ggaggagatg	1140
accaagaacc aggtcagcct gacctgcctg gtcaaaggct tctaccccag cgacatcgcc	1200
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gactccgacg gctccttctt cctctacagc aagctcaccg tggacaagag caggtggcag	1320
caggggaacg tcttctcatg ctccgtgatg catgaggctc tgcacaacca ctacacgcag	1380
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<210> 80

<211> 469

<212> PRT

<213> Homo sapiens

<400> 80

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp

SEQUENCE LISTING

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

SEQUENCE LISTING

210

215

220

Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Thr
225 230 235 240

Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro
245 250 255

Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
260 265 270

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
275 280 285

Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val
290 295 300

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser
305 310 315 320

Thr Phe Arg Val Val Ser Val Leu Thr Val Val His Gln Asp Trp Leu
325 330 335

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala
340 345 350

Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro
355 360 365

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
370 375 380

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
385 390 395 400

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
405 410 415

Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu

SEQUENCE LISTING

420

425

430

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
435 440 445

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
450 455 460

Leu Ser Pro Gly Lys
465

<210> 81
<211> 714
<212> DNA
<213> Homo sapiens

<400> 81
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atccagctga cccagtctcc atcatctctg agcgcacatctg ttggagatag ggtcactatg 120
agctgtaagt ccagtcaaag tgttttatac agtgcaaadc acaagaacta cttggcctgg 180
taccagcaga aaccagggaa agcacctaaa ctgctgatct actgggcatc cactagggaa 240
tctgggtgtcc cttcgcgatt ctctggcagc ggatctggga cagattttac tttcaccatc 300
agctctcttc aaccagaaga cattgcaaca tattattgtc accaatacct ctctcgttg 360
acgttcgggtg gagggaccaa ggtgcagatc aaacgaactg tggctgcacc atctgtcttc 420
atcttcccg ccatctgatga gcagttgaaa tctggaactg cctctgttgt gtgcctgctg 480
aataacttct atcccagaga ggccaaagta cagtgggaagg tggataacgc cctccaatcg 540
ggtaactccc aggagagtgt cacagagcag gacagcaagg acagcaccta cagcctcagc 600
agcaccctga cgctgagcaa agcagactac gagaaacaca aagtctacgc ctgcgaagtc 660
acccatcagg gcctgagctc gcccgtcaca aagagcttca acaggggaga gtgt 714

<210> 82
<211> 238
<212> PRT
<213> Homo sapiens

<400> 82

SEQUENCE LISTING

Met Gly Trp Ser Cys Ile Ile Leu Phe Leu Val Ala Thr Ala Thr Gly
1 5 10 15

Val His Ser Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala
20 25 30

Ser Val Gly Asp Arg Val Thr Met Ser Cys Lys Ser Ser Gln Ser Val
35 40 45

Leu Tyr Ser Ala Asn His Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys
50 55 60

Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu
65 70 75 80

Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe
85 90 95

Thr Phe Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala Thr Tyr Tyr
100 105 110

Cys His Gln Tyr Leu Ser Ser Trp Thr Phe Gly Gly Gly Thr Lys Val
115 120 125

Gln Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
130 135 140

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
165 170 175

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
180 185 190

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
195 200 205

SEQUENCE LISTING

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
 210 215 220

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 225 230 235

<210> 83
 <211> 1395
 <212> DNA
 <213> Homo sapiens

<400> 83
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 tgcaaggctt ctggctacac ctttactagc tactggctgc actgggtcag gcaggcacct 180
 ggacagggtc tggaatggat tggatacatt aatcctagga atgattatac tgagtacaat 240
 cagaacttca aggacaaggc cacaataact gcagacgaat ccaccaatac agcctacatg 300
 gagctgagca gcctgaggtc tgaggacacg gcattttatt tttgtgcaag aagggatatt 360
 actacgttct actggggcca aggcaccacg gtcaccgtct cctcagcctc caccaagggc 420
 ccatcggtct tccccctggc accctcctcc aagagcacct ctggggggcac agcggccctg 480
 ggctgcctgg tcaaggacta cttccccgaa ccgggtgacgg tgtcgtggaa ctcaggcgcc 540
 ctgaccagcg gcgtgcacac cttcccggtc gtcctacagt cctcaggact ctactccctc 600
 agcagcgtgg tgaccgtgcc ctccagcagc ttgggcaccc agacctacat ctgcaacgtg 660
 aatcacaagc ccagcaacac caaggtggac aagagagttg agcccaaatc ttgtgacaaa 720
 actcacacat gcccaccgtg cccagcacct gaactcctgg ggggaccgtc agtcttcctc 780
 ttccccccaa aaccaagga caccctcatg atctcccga cccctgaggt cacatgcgtg 840
 gtggtggacg tgagccacga agaccctgag gtcaagttca actggtacgt ggacggcgtg 900
 gaggtgcata atgccaagac aaagccgcgg gaggagcagt acaacagcac gtaccgtgtg 960
 gtcagcgtcc tcaccgtcct gcaccaggac tggctgaatg gcaaggagta caagtgaag 1020
 gtctccaaca aagccctccc agcccccatc gagaaaacca tctccaaagc caaagggcag 1080
 ccccgagaac cacaggtgta caccctgccc ccatcccggg aggagatgac caagaaccag 1140

SEQUENCE LISTING

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gtcagcctga cctgcctggc caaaggcttc tatcccagcg acatcgccgt ggagtgggag 1200
agcaatgggc agccggagaa caactacaag accacgcctc ccgtgctgga ctccgacggc 1260
tccttcttcc tctatagcaa gctcaccgtg gacaagagca ggtggcagca ggggaacgtc 1320
ttctcatgct ccgtgatgca tgaggctctg cacaaccact acacgcagaa gagcctctcc 1380
ctgtctccgg gtaaa 1395
```

```
<210> 84
<211> 465
<212> PRT
<213> Homo sapiens
```

```
<400> 84
```

```
Met Gly Trp Ser Cys Ile Ile Leu Phe Leu Val Ala Thr Ala Thr Gly
1          5          10          15
```

```
Val His Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
          20          25          30
```

```
Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
          35          40          45
```

```
Thr Ser Tyr Trp Leu His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
          50          55          60
```

```
Glu Trp Ile Gly Tyr Ile Asn Pro Arg Asn Asp Tyr Thr Glu Tyr Asn
65          70          75          80
```

```
Gln Asn Phe Lys Asp Lys Ala Thr Ile Thr Ala Asp Glu Ser Thr Asn
          85          90          95
```

```
Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Phe
          100          105          110
```

```
Tyr Phe Cys Ala Arg Arg Asp Ile Thr Thr Phe Tyr Trp Gly Gln Gly
          115          120          125
```

```
Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
```


SEQUENCE LISTING

130

135

140

Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu
 145 150 155 160

Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
 165 170 175

Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
 180 185 190

Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
 195 200 205

Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro
 210 215 220

Ser Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys
 225 230 235 240

Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro
 245 250 255

Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
 260 265 270

Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
 275 280 285

Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
 290 295 300

Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val
 305 310 315 320

Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
 325 330 335

Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys

SEQUENCE LISTING

340

345

350

Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
355 360 365

Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr
370 375 380

Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
385 390 395 400

Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
405 410 415

Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
420 425 430

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
435 440 445

Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
450 455 460

Lys
465

<210> 85
<211> 705
<212> DNA
<213> Homo sapiens

<400> 85
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gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 120
ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa 180
cctggccagg ctcccaggct cctcatatat ggtgcatcca gcagggccac tggcatccca 240
gacaggttca gtggcagtggt gtctgggaca gacttcactc tcaccatcag cagactggag 300
cctgaagatt ttgcagtgtg ttactgtcag cggtctggtg gctcatcatt cactttcggc 360

SEQUENCE LISTING

```
cctgggacca aagtggatat caaacgaact gtggctgcac catctgtctt catcttcccg      420
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc      480
tatcccagag aggccaaagt acagtggaag gtggataacg ccctccaatc gggtaactcc      540
caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg      600
acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt caccatcag      660
ggcctgagct cgcccgtcac aaagagcttc aacaggggag agtgt                          705
```

```
<210> 86
<211> 235
<212> PRT
<213> Homo sapiens
```

```
<400> 86
```

```
Met Glu Thr Pro Ala Gln Leu Leu Phe Leu Leu Leu Leu Trp Leu Pro
1          5          10          15
```

```
Asp Thr Thr Gly Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser
          20          25          30
```

```
Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser
          35          40          45
```

```
Val Ser Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala
          50          55          60
```

```
Pro Arg Leu Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro
65          70          75          80
```

```
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
          85          90          95
```

```
Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Arg Ser
          100          105          110
```

```
Gly Gly Ser Ser Phe Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
          115          120          125
```

SEQUENCE LISTING

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
130 135 140

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
145 150 155 160

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
165 170 175

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
180 185 190

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
195 200 205

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
210 215 220

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 87
<211> 1398
<212> DNA
<213> Homo sapiens

<400> 87
atgggggtcaa ccgccatcct cgccctcctc ctggctgttc tccaaggagt ctgtgccgag 60
gtgcagctgg tacagtctgg agcagaggtg aaaaagcccg gggagtctct gaagatctcc 120
tgtaagggtt ctggatacaa ctttaccagc tactggatcg gctgggtgcg ccagatgccc 180
gggaaaggcc tggagttgat ggggatcatc tctcctgggtg actctgatac cagatacagc 240
ccgtccttcc aaggccaggt caccatctca gccgacaagt ccatcagcac cgcctacctg 300
cagtggagca gcctgaaggc ctcggacacc gccatgtatt actgtggttc ggggagctac 360
ttttacttcg atctctgggg ccgtggcacc ctggtcaccg tctctagtgc ctccaccaag 420
ggcccatcgg tcttccccct ggcaccctcc tccaagagca cctctggggg cacagcggcc 480
ctgggctgcc tgggtcaagga ctacttcccc gaaccggtga cggtgtcgtg gaactcaggc 540

SEQUENCE LISTING

```

gccctgacca gcggcgtgca caccttcccg gctgtcctac agtcctcagg actctactcc      600
ctcagcagcg tggtgaccgt gccctccagc agcttgggca cccagaccta catctgcaac      660
gtgaatcaca agcccagcaa caccaaggtg gacaagaaag ttgagcccaa atcttgtgac      720
aaaactcaca catgcccacc gtgcccagca cctgaactcc tgggggggacc gtcagtcttc      780
ctcttccccc caaaacccaa ggacaccctc atgatctccc ggaccctga ggtcacatgc      840
gtggtggtgg acgtgagcca cgaagaccct gaggtcaagt tcaactggta cgtggacggc      900
gtggaggtgc ataatgcaa gacaaagccg cgggaggagc agtacaacag cacgtaccgt      960
gtggtcagcg tcctcaccgt cctgcaccag gactggctga atggcaagga gtacaagtgc     1020
aaggtctcca acaaagccct cccagccccc atcgagaaaa ccatctccaa agccaaaggg     1080
cagccccgag aaccacaggt gtacaccctg ccccatccc gggatgagct gaccaagaac     1140
caggtcagcc tgacctgcct ggtcaaaggc ttctatccca gcgacatcgc cgtggagtgg     1200
gagagcaatg ggcagccgga gaacaactac aagaccacgc ctcccgtgct ggactccgac     1260
ggctccttct tcctctatag caagctcacc gtggacaaga gcaggtggca gcagggaac      1320
gtcttctcat gctccgtgat gcatgaggct ctgcacaacc actacacgca gaagagcctc      1380
tccctgtctc cgggtaaa                                     1398

```

<210> 88
 <211> 466
 <212> PRT
 <213> Homo sapiens

<400> 88

```

Met Gly Ser Thr Ala Ile Leu Ala Leu Leu Leu Ala Val Leu Gln Gly
1           5           10          15

```

```

Val Cys Ala Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
20          25          30

```

```

Pro Gly Glu Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Asn Phe
35          40          45

```

```

Thr Ser Tyr Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu

```

SEQUENCE LISTING

50

55

60

Glu Leu Met Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser
65 70 75 80

Pro Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser
85 90 95

Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met
100 105 110

Tyr Tyr Cys Gly Ser Gly Ser Tyr Phe Tyr Phe Asp Leu Trp Gly Arg
115 120 125

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

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
145 150 155 160

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
165 170 175

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
180 185 190

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
195 200 205

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
210 215 220

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
225 230 235 240

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
245 250 255

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile

SEQUENCE LISTING

260

265

270

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
275 280 285

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
290 295 300

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
305 310 315 320

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
325 330 335

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
340 345 350

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
355 360 365

Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
370 375 380

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
385 390 395 400

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
405 410 415

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
420 425 430

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
435 440 445

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
450 455 460

Gly Lys

SEQUENCE LISTING

465

<210> 89
<211> 723
<212> DNA
<213> Homo sapiens

<400> 89
atggacatga ggggtgcccgc tcagctcctg gggctcctgc tgctgtggct gagaggtgcg 60
cgctgtgata ttgtgatgac tcagtctcca ctctccctgc ccgtcacccc tggagagccg 120
gcctccatct cctgcaggtc tagtcagagc ctctgcata gtcattggata caactatttg 180
gattgggtacc tgcagaagcc agggcagctc ccacagctcc tgatctatatt ggggttctaata 240
cgggcctccg ggggtccctga caggttcagt ggcagtgatg caggcacaga ttttacactg 300
aaaatcagca gaggaggaggc tgaggatggt ggggtttatt actgcatgca aggtacacac 360
tgccctccga cttttggcca ggggaccaag ctggagatca aacgtacggg ggctgcacca 420
tctgtcttca tcttcccgcc atctgatgag cagttgaaat ctggaactgc ctctgtttgtg 480
tgctgtgctga ataacttcta tcccagagag gccaaagtac agtggaaggt ggataacgcc 540
ctccaatcgg gtaactccca ggagagtgtc acagagcagg acagcaagga cagcacctac 600
agcctcagca gcaccctgac gctgagcaaa gcagactacg agaaacacaa agtctacgcc 660
tgcgaagtca cccatcaggg cctgagctcg cccgtcaca agagcttcaa caggggagag 720
tgt 723

<210> 90
<211> 241
<212> PRT
<213> Homo sapiens

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

SEQUENCE LISTING

35

40

45

Gln Ser Leu Leu His Ser His Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu
50 55 60

Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn
65 70 75 80

Arg Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr
85 90 95

Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val
100 105 110

Tyr Tyr Cys Met Gln Gly Thr His Trp Pro Pro Thr Phe Gly Gln Gly
115 120 125

Thr Lys Leu Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile
130 135 140

Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val
145 150 155 160

Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys
165 170 175

Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu
180 185 190

Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu
195 200 205

Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr
210 215 220

His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu
225 230 235 240

Cys

SEQUENCE LISTING

<210> 91
 <211> 1410
 <212> DNA
 <213> Homo sapiens

<400> 91
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 cgctgtgagg tccagctggg gcagctctggg ggaggcgtgg tccagcctgg gaggtccctg 120
 agactctcct gtgcagcgtc tggattcacc ttcagtagct atggcatgca ctgggtccgc 180
 caggctccag gcaaggggct ggagtgggtt tcatacatta gtagtagtgg tagtaccata 240
 tactacgcag actctgtgaa gggccgattc accatctcca gggacaacgc caagaactca 300
 ctatatctgc aaatgaacag cctgagagcc gaggacacgg ccgtgtatta ctgtgcgaga 360
 gatctgttag attacgatct gttgactggg tatggctact ggggccaggg aaccctggtc 420
 accgtctcta gtgcctccac caagggccca tcggtcttcc ccctggcgcc ctgctccagg 480
 agcacctccg agagcacagc ggccctgggc tgcctgggtca aggactactt cccgaaccg 540
 gtgacgggtg cgtggaactc aggcgctctg accagcggcg tgcacacctt cccagctgtc 600
 ctacagtcct caggactcta ctccctcagc agcgtgggtga ccgtgccctc cagcaacttc 660
 ggcacccaga cctacacctg caacgtagat cacaagccca gcaacaccaa ggtggacaag 720
 acagttgagc gcaaatgttg tgtcgagtgc ccaccgtgcc cagcaccacc tgtggcagga 780
 ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggaccctt 840
 gaggtcacgt gcgtgggtggg ggacgtgagc cacgaagacc ccgaggtcca gttcaactgg 900
 tacgtggacg gcgtggaggt gcataatgcc aagacaaagc cacgggagga gcagttcaac 960
 agcacgttcc gtgtgggtcag cgtcctcacc gttgtgcacc aggactggct gaacggcaag 1020
 gagtacaagt gcaaggtctc caacaaaggc ctcccagccc ccatcgagaa aaccatctcc 1080
 aaaaccaaag ggcagccccg agaaccacag gtgtacaccc tgcccccatc ccgggaggag 1140
 atgaccaaga accaggtcag cctgacctgc ctgggtcaaag gcttctaccc cagcgacatc 1200
 gccgtggagt gggagagcaa tgggcagccg gagaacaact acaagaccac acctcccatg 1260
 ctggactccg acggctcctt cttcctctac agcaagctca ccgtggacaa gagcaggtgg 1320

SEQUENCE LISTING

cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg 1380

cagaagagcc tctccctgtc tccgggtaaa 1410

<210> 92

<211> 470

<212> PRT

<213> Homo sapiens

<400> 92

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 5 10 15

Leu Arg Gly Ala Arg Cys Glu Val Gln Leu Val Gln Ser Gly Gly Gly
20 25 30

Val Val Gln Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
35 40 45

Phe Thr Phe Ser Ser Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly
50 55 60

Lys Gly Leu Glu Trp Val Ser Tyr Ile Ser Ser Ser Gly Ser Thr Ile
65 70 75 80

Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
85 90 95

Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
100 105 110

Thr Ala Val Tyr Tyr Cys Ala Arg Asp Leu Leu Asp Tyr Asp Leu Leu
115 120 125

Thr Gly Tyr Gly Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
130 135 140

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
145 150 155 160

SEQUENCE LISTING

Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
165 170 175

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
180 185 190

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
195 200 205

Leu Ser Ser Val Val Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr
210 215 220

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
225 230 235 240

Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro
245 250 255

Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
260 265 270

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
275 280 285

Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly
290 295 300

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn
305 310 315 320

Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val His Gln Asp Trp
325 330 335

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro
340 345 350

Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu
355 360 365

SEQUENCE LISTING

Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn
370 375 380

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
385 390 395 400

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
405 410 415

Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
420 425 430

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
435 440 445

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
450 455 460

Ser Leu Ser Pro Gly Lys
465 470

<210> 93
<211> 705
<212> DNA
<213> Homo sapiens

<400> 93
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ctctcctgca gggccagtca ggggtattagt agaagctact tagcctggta ccagcagaaa 180
cctggccagg ctcccagcct cctcatctat ggtgcatcca gcagggccac tggcatccca 240
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 300
cctgaagatt ttgcagtgtg ttactgtcaa caatttggtg gttcaccgtg gacgttcggc 360
caagggacca aggtggaaat caaacgaact gtggctgcac catctgtctt catcttcccg 420
ccatctgatg agcagttgaa atctggaact gctagcgttg tgtgcctgct gaataacttc 480
tatcccagag aggccaaagt acagtggaag gtggataacg ccctccaatc gggttaactcc 540

SEQUENCE LISTING

caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg 600
 acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt cacccatcag 660
 ggccctgagct cgcccgtcac aaagagcttc aacaggggag agtgt 705

<210> 94
 <211> 235
 <212> PRT
 <213> Homo sapiens

<400> 94

Met Glu Thr Pro Ala Gln Leu Leu Phe Leu Leu Leu Leu Trp Leu Pro
 1 5 10 15

Asp Thr Thr Gly Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser
 20 25 30

Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Gly
 35 40 45

Ile Ser Arg Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala
 50 55 60

Pro Ser Leu Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro
 65 70 75 80

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
 85 90 95

Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Phe
 100 105 110

Gly Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 115 120 125

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
 130 135 140

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe

SEQUENCE LISTING

145 150 155 160

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
165 170 175

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
180 185 190

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
195 200 205

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
210 215 220

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 95
<211> 1413
<212> DNA
<213> Homo sapiens

<400> 95
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tgcactgtct ctggtggctc catcagcagt ggtgattact tctggagctg gatccgccag 180
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tcagcctcca ccaagggcc atccgtcttc cccctggcac cctcctcaa gagcacctct 480
gggggcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacgggtg 540
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tcaggactct actccctcag cagcgtggtg accgtgccct ccagcagctt gggcaccag 660
acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gagagttgag 720

SEQUENCE LISTING

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cctgagggtca catgctgtgt ggtggacgtg agccacgaag accctgaggt caagttcaac      900
tggtacgtgg acggcgtgga ggtgcataat gccaagacaa agccgcggga ggagcagtac      960
aacagcacgt accgtgttgt cagcgtcctc accgtcctgc accaggactg gctgaatggc     1020
aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc     1080
tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgggag     1140
gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac     1200
atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc     1260
gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg     1320
tggcagcagg ggaacgtctt ctcattgtcc gtgatgcatg aggctctgca caaccactac     1380
acgcagaaga gcctctccct gtctccgggt aaa                                  1413

```

<210> 96
 <211> 471
 <212> PRT
 <213> Homo sapiens

<400> 96

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Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1           5           10          15

```

```

Val Leu Ser Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys
          20          25          30

```

```

Pro Ser Gln Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile
          35          40          45

```

```

Ser Ser Gly Asp Tyr Phe Trp Ser Trp Ile Arg Gln Leu Pro Gly Lys
          50          55          60

```

```

Gly Leu Glu Trp Ile Gly His Ile His Asn Ser Gly Thr Thr Tyr Tyr
65          70          75          80

```


SEQUENCE LISTING

Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys
85 90 95

Lys Gln Phe Ser Leu Arg Leu Ser Ser Val Thr Ala Ala Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Asp Arg Gly Gly Asp Tyr Tyr Tyr Gly Met
115 120 125

Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr
130 135 140

Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser
145 150 155 160

Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
165 170 175

Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
180 185 190

Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
195 200 205

Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys
210 215 220

Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu
225 230 235 240

Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
245 250 255

Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
260 265 270

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
275 280 285

SEQUENCE LISTING

Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
290 295 300

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
305 310 315 320

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
325 330 335

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
340 345 350

Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
355 360 365

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys
370 375 380

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
385 390 395 400

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
405 410 415

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
420 425 430

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
435 440 445

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
450 455 460

Leu Ser Leu Ser Pro Gly Lys
465 470

<210> 97
<211> 708
<212> DNA

SEQUENCE LISTING

<213> Homo sapiens

<400> 97

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atggacatga ggggtccctgc tcagctcctg gggctcctgc tgctctggct ctcaggtgcc      60
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gtcaccatca cttgccaggc gagtccaggac atcagcaact atttaaattg gtatcagcag      180
aaaccaggga aagcccctaa actcctgata tacgatgcat ccaatttgga aacaggggtc      240
ccatcaaggt tcagtgggaag tggatctggg acagatttta ctttcacat cagcagcctg      300
cagcctgaag atattgcaac atatttctgt caacactttg atcatctccc gctcgctttc      360
ggcggaggga ccaaggtgga gatcaaacga actgtggctg caccatctgt cttcatcttc      420
ccgccatctg atgagcagtt gaaatctgga actgcctctg ttgtgtgcct gctgaataac      480
ttctatccca gagaggccaa agtacagtgg aaggtggata acgccctcca atcgggtaac      540
tcccaggaga gtgtcacaga gcaggacagc aaggacagca cctacagcct cagcagcacc      600
ctgacgctga gcaaagcaga ctacagaaaa caaaagtct acgcctgcga agtcacccat      660
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```

<210> 98

<211> 236

<212> PRT

<213> Homo sapiens

<400> 98

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Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1           5           10          15

```

```

Leu Ser Gly Ala Arg Cys Asp Ile Gln Met Thr Gln Ser Pro Ser Ser
          20          25          30

```

```

Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Gln Ala Ser
          35          40          45

```

```

Gln Asp Ile Ser Asn Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys
          50          55          60

```

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Ala Pro Lys Leu Leu Ile Tyr Asp Ala Ser Asn Leu Glu Thr Gly Val

```

SEQUENCE LISTING

65 70 75 80

Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr
85 90 95

Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala Thr Tyr Phe Cys Gln His
100 105 110

Phe Asp His Leu Pro Leu Ala Phe Gly Gly Gly Thr Lys Val Glu Ile
115 120 125

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
130 135 140

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
145 150 155 160

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
165 170 175

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
180 185 190

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
195 200 205

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
210 215 220

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 99
<211> 1392
<212> DNA
<213> Homo sapiens

<400> 99
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gtacagctgc aggagtcggg cccaggactg gtgaagcctt cggagaccct gtcctcacc 120

SEQUENCE LISTING

tgcaactgtct ctggtggctc cgtcagcagt ggtgattact actggacctg gatccggcag	180
tccccaggga agggactgga gtggattgga cacatctatt acagtgggaa caccaattat	240
aaccctccc tcaagagtcg actcaccata tcaattgaca cgtccaagac tcagttctcc	300
ctgaagctga gttctgtgac cgctgcggac acggccattt attactgtgt gcgagatcga	360
gtgactgggtg cttttgatat ctggggccaa gggacaatgg tcaccgtctc ttcagctagc	420
accaagggcc catcgggtctt ccccctggcg ccctgctcca ggagcacctc cgagagcaca	480
gcggccctgg gctgcctggg caaggactac ttccccgaac cggtgacggg gtcgtggaac	540
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aatgggcagc cggagaacaa ctacaagacc acacctccca tgctggactc cgacggctcc	1260
ttcttcctct acagcaagct caccgtggac aagagcaggt ggcagcaggg gaacgtcttc	1320
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<210> 100
 <211> 464
 <212> PRT
 <213> Homo sapiens

<400> 100

SEQUENCE LISTING

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
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Val Leu Ser Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys
20 25 30

Pro Ser Glu Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Val
35 40 45

Ser Ser Gly Asp Tyr Tyr Trp Thr Trp Ile Arg Gln Ser Pro Gly Lys
50 55 60

Gly Leu Glu Trp Ile Gly His Ile Tyr Tyr Ser Gly Asn Thr Asn Tyr
65 70 75 80

Asn Pro Ser Leu Lys Ser Arg Leu Thr Ile Ser Ile Asp Thr Ser Lys
85 90 95

Thr Gln Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala
100 105 110

Ile Tyr Tyr Cys Val Arg Asp Arg Val Thr Gly Ala Phe Asp Ile Trp
115 120 125

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
130 135 140

Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr
145 150 155 160

Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
165 170 175

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
180 185 190

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
195 200 205

SEQUENCE LISTING

Val Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp
210 215 220

His Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys
225 230 235 240

Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser
245 250 255

Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
260 265 270

Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
275 280 285

Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
290 295 300

Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val
305 310 315 320

Ser Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
325 330 335

Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr
340 345 350

Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
355 360 365

Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys
370 375 380

Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser
385 390 395 400

Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp
405 410 415

SEQUENCE LISTING

Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser
420 425 430

Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
435 440 445

Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

<210> 101
<211> 708
<212> DNA
<213> Homo sapiens

<400> 101
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ctctcctgca gggccagtca gagtgttagc aacagctact tagcctggta ccagcagaaa 180
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccccc tggcatccca 240
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ctgacgctga gcaaagcaga ctacagagaaa cacaaagtct acgcctgcga agtcacccat 660
cagggcctga gctcgcccggt cacaaagagc ttcaacaggg gagagtgt 708

<210> 102
<211> 236
<212> PRT
<213> Homo sapiens

<400> 102

Met Glu Thr Pro Ala Gln Leu Leu Phe Leu Leu Leu Trp Leu Pro

SEQUENCE LISTING

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

SEQUENCE LISTING

210

215

220

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 103
<211> 1680
<212> DNA
<213> Homo sapiens

<400> 103
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ggctgggtgc ccctacccca ggcccttcac acacaggggc aggtgcttgg ctacagacctg 960
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aaggacacc tcatgatctc ccggaccct gaggtcacgt gcgtgggtgg ggacgtgagc 1140
cacgaagacc ccgaggtcca gttcaactgg tacgtggacg gcgtggaggt gcataatgcc 1200

SEQUENCE LISTING

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aagacaaagc cacgggagga gcagttcaac agcacgttcc gtgtggtcag cgtcctcacc      1260
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ctcccagccc ccatcgagaa aaccatctcc aaaaccaaag ggcagccccg agaaccacag      1380
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gagaacaact acaagaccac acctcccatg ctggactccg acggctcctt cttcctctac      1560
agcaagctca ccgtggacaa gagcaggtgg cagcagggga acgtcttctc atgctccgtg      1620
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```

```

<210> 104
<211> 460
<212> PRT
<213> Homo sapiens

```

```

<400> 104

```

```

Met Gly Ser Thr Ala Ile Leu Gly Leu Leu Leu Ala Val Leu Gln Gly
1           5           10           15

```

```

Val Ala Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
20           25           30

```

```

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35           40           45

```

```

Ser Arg Asn Ala Met Phe Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50           55           60

```

```

Glu Trp Val Ser Gly Ile Gly Thr Gly Gly Ala Thr Ser Tyr Ala Asp
65           70           75           80

```

```

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser
85           90           95

```

```

Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
100          105          110

```

SEQUENCE LISTING

Tyr Cys Ala Arg Gly Arg Tyr Tyr Phe Pro Trp Trp Gly Gln Gly Thr
115 120 125

Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
130 135 140

Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly
145 150 155 160

Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
165 170 175

Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln
180 185 190

Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
195 200 205

Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser
210 215 220

Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu Cys
225 230 235 240

Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe
245 250 255

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
260 265 270

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe
275 280 285

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
290 295 300

Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr
305 310 315 320

SEQUENCE LISTING

Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
325 330 335

Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr
340 345 350

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
355 360 365

Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
370 375 380

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
385 390 395 400

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser
405 410 415

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
420 425 430

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
435 440 445

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

<210> 105
<211> 702
<212> DNA
<213> Homo sapiens

<400> 105
atggaaaccc cagcgagct tctcttcctc ctgctactct ggctcccaga taccaccgga 60
gaaatttgtt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 120
ctctcctgca gggccagtca gagggttagc agcagctact tagcctggta ccagcagaaa 180
cctggccagg ctcccaggct cctcatctat ggtgcatccc gcagggccac tggcatccca 240
gacaggttca gtggcagtggt gtctgggaca gacttcactc tcaccatcag cagactggag 300

SEQUENCE LISTING

```
cctgaagatt ttgcagtgtg ttactgtcag cggtatggta gctcacacac ttttggccag      360
gggaccaagc tggagatcag ccgaactgtg gctgcaccat ctgtcttcat cttcccgcca      420
tctgatgagc agttgaaatc tggaactgcc tctgtttgtgt gcctgctgaa taactttctat      480
cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag      540
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg      600
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc      660
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt                          702
```

```
<210> 106
<211> 234
<212> PRT
<213> Homo sapiens
```

```
<400> 106
```

```
Met Glu Thr Pro Ala Gln Leu Leu Phe Leu Leu Leu Trp Leu Pro
1          5          10          15
```

```
Asp Thr Thr Gly Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser
20          25          30
```

```
Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser
35          40          45
```

```
Val Ser Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala
50          55          60
```

```
Pro Arg Leu Leu Ile Tyr Gly Ala Ser Arg Arg Ala Thr Gly Ile Pro
65          70          75          80
```

```
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
85          90          95
```

```
Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Arg Tyr
100         105         110
```

```
Gly Ser Ser His Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Ser Arg
```

SEQUENCE LISTING

115

120

125

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
130 135 140

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
145 150 155 160

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
165 170 175

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
180 185 190

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
195 200 205

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
210 215 220

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230

<210> 107
<211> 1401
<212> DNA
<213> Homo sapiens

<400> 107
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gtgcagctgg tgcagtctgg agcagaggtg aaaaagcccg gggagtctct gaagatctcc 120
tgtaaggttt ctggatactt ctttaccacc tactggatcg gctgggtgcg ccagatgccc 180
gggaaaggcc tggagtatat ggggatcatc tatcctggtg actctgatac cagatacagc 240
ccgtccttcc aaggccaggt caccatctca gccgacaagt ccatacagcac cgcctacctg 300
cagtggagca gcctgaaggc ctcggacacc gccatgtatt actgtgagag aggggggtaac 360
tggaactgct ttgactactg gggccaggga accctggtca ccgtctcctc agcctccacc 420
aaggggcccat cgggtcttccc cctggcaccc tcctccaaga gcacctctgg gggcacagcg 480

SEQUENCE LISTING

```

gccctgggct gcctgggtcaa ggactacttc cccgaaccgg tgacggtgtc gtggaactca      540
ggcgccctga ccagcggcgt gcacaccttc ccggctgtcc tacagtcctc aggactctac      600
tccctcagca gcgtgggtgac cgtgccctcc agcagcttgg gcacccagac ctacatctgc      660
aacgtgaatc acaagcccag caacaccaag gtggacaaga gagttgagcc caaatcttgt      720
gacaaaactc acacatgccc accgtgcccga gcacctgaac tcctggggggg accgtcagtc      780
ttcctcttcc ccccaaaacc caaggacacc ctcatgatct cccggacccc tgaggtcaca      840
tgcggtggggg tggacgtgag ccacgaagac cctgaggtca agttcaactg gtacgtggac      900
ggcgtggaggg tgcataatgc caagacaaaag ccgcggggagg agcagtacaa cagcacgtac      960
cgtgtgggtca gcgtcctcac cgtcctgcac caggactggc tgaatggcaa ggagtacaag     1020
tgcaagggtct ccaacaaaagc cctcccagcc cccatcgaga aaaccatctc caaagccaaa     1080
gggcagcccc  gagaaccaca ggtgtacacc ctgcccccat cccgggatga gctgaccaag     1140
aaccagggtca gcctgacctg cctgggtcaaa ggcttctatc ccagcgacat cgccgtggag     1200
tgggagagca atgggcagcc ggagaacaac tacaagacca cgcctcccgt gctggactcc     1260
gacggctcct tcttcctcta cagcaagctc accgtggaca agagcaggtg gcagcagggg     1320
aacgtcttct catgctccgt gatgcatgag gctctgcaca accactacac gcagaagagc     1380
ctctccctgt ctccgggtaa a                                             1401

```

```

<210> 108
<211> 467
<212> PRT
<213> Homo sapiens

```

```
<400> 108
```

```

Met Gly Ser Thr Ala Ile Leu Ala Leu Leu Leu Ala Val Leu Gln Gly
1           5           10          15

```

```

Val Cys Ala Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
          20          25          30

```

```

Pro Gly Glu Ser Leu Lys Ile Ser Cys Lys Val Ser Gly Tyr Phe Phe
          35          40          45

```


SEQUENCE LISTING

Thr Thr Tyr Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu
50 55 60

Glu Tyr Met Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser
65 70 75 80

Pro Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser
85 90 95

Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met
100 105 110

Tyr Tyr Cys Ala Arg Gly Gly Asn Trp Asn Cys Phe Asp Tyr Trp Gly
115 120 125

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

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
145 150 155 160

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
165 170 175

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
180 185 190

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
195 200 205

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
210 215 220

Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys
225 230 235 240

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
245 250 255

SEQUENCE LISTING

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
260 265 270

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
275 280 285

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
290 295 300

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
305 310 315 320

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
325 330 335

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
340 345 350

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
355 360 365

Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser
370 375 380

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
385 390 395 400

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
405 410 415

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
420 425 430

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
435 440 445

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
450 455 460

SEQUENCE LISTING

Pro Gly Lys
465

<210> 109
<211> 723
<212> DNA
<213> Homo sapiens

<400> 109
atggacatga ggggtgcccgc tcagctcctg gggctcctgc tgctgtggct gagaggtgcc 60
agatgtgatg ttgtgatgac tcagtctcca ctctccctgc ccgtcacccc tggagagccg 120
gcctccatct cctgcaggtc tagtcagagc ctctgcata gtaatggata caactatttg 180
gattgggtacc tgcagaagcc agggcagctc ccacagctcc tgatctatctt gggtttcta 240
cgggcctccg ggggtccctga caggttcagt ggcagtggat caggcacaga ttttacactg 300
aaaatcagca ggggtggaggc tgaggatgtt ggggtttatt actgcatgca aggtacacac 360
tggcctctga cgttcggcca agggaccaag gtggagatca aacgaactgt ggctgcacca 420
tctgtcttca tcttcccgcc atctgatgag cagttgaaat ctggaactgc ctctgtttgtg 480
tgctgtctga ataacttcta tcccagagag gccaaagtac agtggaaggt ggataacgcc 540
ctccaatcgg gtaactccca ggagagtgtc acagagcagg acagcaagga cagcacctac 600
agcctcagca gcaccctgac gctgagcaaa gcagactacg agaaacacaa agtctacgcc 660
tgcgaagtca cccatcaggg cctgagctcg cccgtcacia agagcttcaa caggggagag 720
tgt 723

<210> 110
<211> 241
<212> PRT
<213> Homo sapiens

<400> 110

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 5 10 15

Leu Arg Gly Ala Arg Cys Asp Val Val Met Thr Gln Ser Pro Leu Ser
20 25 30

SEQUENCE LISTING

Leu Pro Val Thr Pro Gly Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser
35 40 45

Gln Ser Leu Leu His Ser Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu
50 55 60

Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn
65 70 75 80

Arg Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr
85 90 95

Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val
100 105 110

Tyr Tyr Cys Met Gln Gly Thr His Trp Pro Leu Thr Phe Gly Gln Gly
115 120 125

Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile
130 135 140

Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val
145 150 155 160

Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys
165 170 175

Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu
180 185 190

Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu
195 200 205

Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr
210 215 220

His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu
225 230 235 240

SEQUENCE LISTING

Cys

<210> 111
<211> 1413
<212> DNA
<213> Homo sapiens

<400> 111
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tccctcacct gcgctgtctc tgggtggctcc atcagcagta gtaactgggtg gagttgggtc 180
cgccagcccc cagggaaggg gctggagtggt attggggaaa tctatcatag tgggagcacc 240
aactacaacc cgtccctcaa gagtcgagtc accatatcag tagacaagtc caagaaccag 300
ttctccctga agctgagctc tgtgaccgcc gcggacacgg ccgtgtatta ctgtgcgaga 360
tggaccgggc gtactgatgc ttttgatatac tggggccaag ggacaatggt caccgtctct 420
agtgcctcca ccaagggccc atcgggtcttc cccctggcac cctcctcaa gagcacctct 480
gggggcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacgggtg 540
tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggctgt cctacagtcc 600
tcaggactct actccctcag cagcgtgggtg accgtgccct ccagcagctt gggcacccag 660
acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gaaagttgag 720
cccaaactct gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg 780
ggaccgtcag tcttcctctt cccccaaaa cccaaggaca ccctcatgat ctcccggacc 840
cctgaggtca catgcgtggg ggtggacgtg agccacgaag accctgaggt caagttcaac 900
tggtacgtgg acggcgtgga ggtgcataat gccaagacaa agccgcggga ggagcagtac 960
aacagcacgt accgtgtggg cagcgtcctc accgtcctgc accaggactg gctgaatggc 1020
aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc 1080
tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgggat 1140
gagctgacca agaaccaggt cagcctgacc tgcctgggtca aaggcttcta tcccagcgac 1200
atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc 1260

SEQUENCE LISTING

```
gtgctggact cgcacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg 1320
tggcagcagg ggaacgtctt ctcattgctcc gtgatgcatg aggctctgca caaccactac 1380
acgcagaaga gcctctccct gtctccgggt aaa 1413
```

```
<210> 112
<211> 471
<212> PRT
<213> Homo sapiens
```

```
<400> 112
```

```
Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 5 10 15
```

```
Leu Arg Gly Ala Arg Cys Gln Val Gln Leu Gln Glu Ser Gly Pro Gly
20 25 30
```

```
Leu Val Lys Pro Ser Gly Thr Leu Ser Leu Thr Cys Ala Val Ser Gly
35 40 45
```

```
Gly Ser Ile Ser Ser Ser Asn Trp Trp Ser Trp Val Arg Gln Pro Pro
50 55 60
```

```
Gly Lys Gly Leu Glu Trp Ile Gly Glu Ile Tyr His Ser Gly Ser Thr
65 70 75 80
```

```
Asn Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Lys
85 90 95
```

```
Ser Lys Asn Gln Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp
100 105 110
```

```
Thr Ala Val Tyr Tyr Cys Ala Arg Trp Thr Gly Arg Thr Asp Ala Phe
115 120 125
```

```
Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr
130 135 140
```

```
Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser
```

SEQUENCE LISTING

145		150		155		160
Gly Gly Thr Ala	Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu	165		170		175
Pro Val Thr Val	Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His	180		185		190
Thr Phe Pro Ala	Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser	195		200		205
Val Val Thr Val	Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys	210		215		220
Asn Val Asn His	Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu	225		230		235
Pro Lys Ser Cys	Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro	245		250		255
Glu Leu Leu Gly	Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys	260		265		270
Asp Thr Leu Met	Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val	275		280		285
Asp Val Ser His	Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp	290		295		300
Gly Val Glu Val	His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr	305		310		315
Asn Ser Thr Tyr	Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp	325		330		335
Trp Leu Asn Gly	Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu	340		345		350
Pro Ala Pro Ile	Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg					

SEQUENCE LISTING

355

360

365

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys
 370 375 380

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
 385 390 395 400

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
 405 410 415

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
 420 425 430

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
 435 440 445

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
 450 455 460

Leu Ser Leu Ser Pro Gly Lys
 465 470

<210> 113
 <211> 702
 <212> DNA
 <213> Homo sapiens

<400> 113
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 gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctctgggga aagagccacc 120
 ctctcctgca gggccagtc gagtgtagc agcaacttag cctgggtcca gcagaaacct 180
 ggccaggctc ccaggccct catctatgat gcatccacca gggccactgg tgtcccagcc 240
 aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag cctgcagtct 300
 gaagattttg cagtttatta ctgtcagcag tatgataact ggccgctcac tttcggcgga 360
 gggaccaagg tggagatcaa acgtacggtg gctgcacat ctgtcttcat cttcccgcca 420
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 480

SEQUENCE LISTING

```

cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag      540
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg      600
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc      660
ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt                          702

```

```

<210> 114
<211> 234
<212> PRT
<213> Homo sapiens

```

```

<400> 114

```

```

Met Glu Ala Pro Ala Gln Leu Leu Phe Leu Leu Leu Leu Trp Leu Pro
1          5          10          15

```

```

Asp Thr Thr Gly Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser
          20          25          30

```

```

Val Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser
          35          40          45

```

```

Val Ser Ser Asn Leu Ala Trp Phe Gln Gln Lys Pro Gly Gln Ala Pro
          50          55          60

```

```

Arg Pro Leu Ile Tyr Asp Ala Ser Thr Arg Ala Thr Gly Val Pro Ala
65          70          75          80

```

```

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser
          85          90          95

```

```

Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asp
          100          105          110

```

```

Asn Trp Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
          115          120          125

```

```

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
          130          135          140

```

SEQUENCE LISTING

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
145 150 155 160

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
165 170 175

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
180 185 190

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
195 200 205

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
210 215 220

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230

<210> 115
<211> 1383
<212> DNA
<213> Homo sapiens

<400> 115
atggagtgga cctggagggt ctttttcttg gtggcagcag caacaggtgc ccactcccag 60
gttcagctgg tgcagtctgg agctgaggtg aagaagcctg gggcctcagt gaaggtctcc 120
tgcaaggctt ctggttacac ctttaccaga tatggtatca gctgggtgcg acaggcccct 180
ggacaagggc ttgagtggat gggatggatc agcacttaca gtggtaacac aaactatgca 240
cagaagctcc agggcagagt caccatgacc acagacacat ccacgagcac agcctacatg 300
gagctgagga gcctgagatc tgacgacacg gccgtgtatt actgtgagag acggcagctt 360
tactttgact actggggcca gggaaccctg gtcaccgtct cctcagctag caccaagggc 420
ccatcggtct tccccctggc gccctgctcc aggagcacct ccgagagcac agcggccctg 480
ggctgcctgg tcaaggacta cttccccgaa ccggtgacgg tgtcgtggaa ctcaggcgct 540
ctgaccagcg gcgtgcacac cttcccagct gtcctacagt cctcaggact ctactccctc 600
agcagcgtgg tgaccgtgcc ctccagcaac ttcggcacc agacctacac ctgcaacgta 660

SEQUENCE LISTING

```

gatcacaagc ccagcaacac caaggtggac aagacagttg agcgcaaata ttgtgtcgag      720
tgcccaccgt gccagcacc acctgtggca ggaccgtcag tcttcctctt cccccaaaa      780
cccaaggaca ccctcatgat ctcccggacc cctgaggtca cgtgcgtggt ggtggacgtg      840
agccacgaag accccgaggt ccagttcaac tggtagctgg acggcgtgga ggtgcataat      900
gccaagacaa agccacggga ggagcagttc aacagcacgt tccgtgtggt cagcgtcctc      960
accgttgtgc accaggactg gctgaacggc aaggagtaca agtgcaaggt ctccaacaaa     1020
ggcctcccag ccccatcga gaaaaccatc tccaaaacca aagggcagcc ccgagaacca     1080
caggtgtaca ccctgcccc atcccgggag gagatgacca agaaccaggt cagcctgacc     1140
tgcctgggtc aaggcttcta cccagcgac atcgccgtgg agtgggagag caatgggcag     1200
ccggagaaca actacaagac cacacctccc atgctggact ccgacggctc cttcttcctc     1260
tacagcaagc tcaccgtgga caagagcagg tggcagcagg ggaacgtctt ctcatgctcc     1320
gtgatgcatg aggctctgca caaccactac acgcagaaga gcctctccct gtctccgggt     1380
aaa                                                                    1383

```

```

<210> 116
<211> 461
<212> PRT
<213> Homo sapiens

```

```

<400> 116

```

```

Met Glu Trp Thr Trp Arg Val Leu Phe Leu Val Ala Ala Ala Thr Gly
1           5           10          15

```

```

Ala His Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
          20          25          30

```

```

Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
          35          40          45

```

```

Thr Arg Tyr Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
          50          55          60

```

```

Glu Trp Met Gly Trp Ile Ser Thr Tyr Ser Gly Asn Thr Asn Tyr Ala

```

SEQUENCE LISTING

65	70	75	80
Gln Lys Leu Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser	85	90	95
Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val	100	105	110
Tyr Tyr Cys Ala Arg Arg Gln Leu Tyr Phe Asp Tyr Trp Gly Gln Gly	115	120	125
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe	130	135	140
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu	145	150	155
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp	165	170	175
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu	180	185	190
Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser	195	200	205
Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro	210	215	220
Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu	225	230	235
Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu	245	250	255
Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu	260	265	270
Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln			

SEQUENCE LISTING

275

280

285

Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys
290 295 300

Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu
305 310 315 320

Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys
325 330 335

Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys
340 345 350

Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
355 360 365

Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
370 375 380

Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
385 390 395 400

Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly
405 410 415

Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
420 425 430

Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
435 440 445

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

<210> 117
<211> 717
<212> DNA
<213> Homo sapiens

SEQUENCE LISTING

<400> 117
atgaggctcc ctgctcagct cctggggctg ctaatgctct ggatacctgg atccagtgc 60
gatattgtga tgaccagac tccactctct ctgtccgtca cccctggaca gccggcctcc 120
atctcctgca agtctggtca gagcctcctg catagtgatg gaaagaccta tttgtattgg 180
tacctgcaga agccaggcca gcctccacag ttcctgatct atgaagtttc caaccggttc 240
tctagagtgc cagataggtt cagtggcagc gggtcaggga cagatttcac actgagaatc 300
agccgggtgg aggctgagga tgttggaatt tattactgca tgcaaagtat acagcttccg 360
tggacgttcg gccaaaggac ccaggtggaa atcaaacgaa ctgtggctgc accatctgtc 420
ttcatcttcc cgccatctga tgagcagttg aaatctggaa ctgcctctgt tgtgtgcctg 480
ctgaataact tctatcccag agaggccaaa gtacagtgga aggtggataa cgccctccaa 540
tcgggtaact cccaggagag tgtcacagag caggacagca aggacagcac ctacagcctc 600
agcagcacc tgacgtgag caaagcagac tacgagaaac acaaagtcta cgcctgcgaa 660
gtcacccatc agggcctgag ctcgcccgtc acaaagagct tcaacagggg agagtgt 717

<210> 118
<211> 239
<212> PRT
<213> Homo sapiens

<400> 118
Met Arg Leu Pro Ala Gln Leu Leu Gly Leu Leu Met Leu Trp Ile Pro
1 5 10 15
Gly Ser Ser Ala Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser
20 25 30
Val Thr Pro Gly Gln Pro Ala Ser Ile Ser Cys Lys Ser Gly Gln Ser
35 40 45
Leu Leu His Ser Asp Gly Lys Thr Tyr Leu Tyr Trp Tyr Leu Gln Lys
50 55 60
Pro Gly Gln Pro Pro Gln Phe Leu Ile Tyr Glu Val Ser Asn Arg Phe
65 70 75 80

SEQUENCE LISTING

Ser Arg Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe
85 90 95

Thr Leu Arg Ile Ser Arg Val Glu Ala Glu Asp Val Gly Ile Tyr Tyr
100 105 110

Cys Met Gln Ser Ile Gln Leu Pro Trp Thr Phe Gly Gln Gly Thr Gln
115 120 125

Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro
130 135 140

Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu
145 150 155 160

Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp
165 170 175

Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp
180 185 190

Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys
195 200 205

Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln
210 215 220

Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 119
<211> 1377
<212> DNA
<213> Homo sapiens

<400> 119
atggagtttg ggctgagctg ggttttcctc gttgctcttt taagaggtgt ccagtgtcag 60
gtgcagctgg tggagtctgg gggaggcgtg gtccagcctg ggaggtccct gagactctcc 120
tgtgcagcct ctggattcac cttcagtggc tatggcatgc actgggtccg ccaggctcca 180

SEQUENCE LISTING

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ggcaaggggc tggagtgggt ggcagttata tcatatgatg gaaatgataa atactatgca      240
gactccgtga agggccgatt caccatctcc agagacaatg ccaagaacac gctgtatctg      300
caaatgaaca gcctgagagc tgaggacacg gctgtgtatt actgtgagag agagctacgg      360
gtcctctggg gccaggggaa cctggtcacc gtctctagtg cctccaccaa gggcccatcg      420
gtcttcccc tggcgccctg ctccaggagc acctccgaga gcacagcggc cctgggctgc      480
ctgggtcaagg actacttccc cgaaccgggtg acgggtgtcgt ggaactcagg cgctctgacc      540
agcggcgtgc acaccttccc agctgtccta cagtcctcag gactctactc cctcagcagc      600
gtggtgaccg tgccctccag caacttcggc acccagacct acacctgcaa cgtagatcac      660
aagcccagca acaccaaggt ggacaagaca gttgagcgca aatgttgtgt cgagtgccca      720
ccgtgcccag caccacctgt ggaggagcgc tcagtcttcc tcttcccccc aaaacccaag      780
gacaccctca tgatctcccg gaccctgag gtcacgtgcg tgggtgggga cgtgagccac      840
gaagaccccg aggtccagtt caactggtag gtggacggcg tggaggtgca taatgccaaag      900
acaaagccac gggaggagca gttcaacagc acgttccgtg tggtcagcgt cctcaccgtt      960
gtgcaccagg actggctgaa cggcaaggag tacaagtgca aggtctccaa caaaggcctc     1020
ccagccccca tcgagaaaac catctccaaa accaaagggc agccccgaga accacaggtg     1080
tacaccctgc ccccatcccc ggaggagatg accaagaacc aggtcagcct gacctgcctg     1140
gtcaaaggct tctaccccag cgacatcgcc gtggagtggg agagcaatgg gcagccggag     1200
aacaactaca agaccacacc tcccatgctg gactccgacg gctccttctt cctctacagc     1260
aagctcaccg tggacaagag caggtggcag caggggaacg tcttctcatg ctccgtgatg     1320
catgaggctc tgcacaacca ctacacgag aagagcctct ccctgtctcc gggtaaa         1377

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<210> 120
 <211> 459
 <212> PRT
 <213> Homo sapiens

<400> 120

```

Met Glu Phe Gly Leu Ser Trp Val Phe Leu Val Ala Leu Leu Arg Gly
1           5           10          15

```


SEQUENCE LISTING

Val	Gln	Cys	Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Gln	20	25	30	
Pro	Gly	Arg	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	35	40	45	
Ser	Gly	Tyr	Gly	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	50	55	60	
Glu	Trp	Val	Ala	Val	Ile	Ser	Tyr	Asp	Gly	Asn	Asp	Lys	Tyr	Tyr	Ala	65	70	75	80
Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala	Lys	Asn	85	90	95	
Thr	Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	100	105	110	
Tyr	Tyr	Cys	Ala	Arg	Glu	Leu	Arg	Val	Leu	Trp	Gly	Gln	Gly	Thr	Leu	115	120	125	
Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe	Pro	Leu	130	135	140	
Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala	Leu	Gly	Cys	145	150	155	160
Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp	Asn	Ser	165	170	175	
Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu	Gln	Ser	180	185	190	
Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val	Pro	Ser	Ser	Asn	195	200	205	
Phe	Gly	Thr	Gln	Thr	Tyr	Thr	Cys	Asn	Val	Asp	His	Lys	Pro	Ser	Asn	210	215	220	

SEQUENCE LISTING

Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro
225 230 235 240

Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro
245 250 255

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
260 265 270

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Asn
275 280 285

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
290 295 300

Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val
305 310 315 320

Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
325 330 335

Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys
340 345 350

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
355 360 365

Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
370 375 380

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
385 390 395 400

Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe
405 410 415

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
420 425 430

SEQUENCE LISTING

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
 435 440 445

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 450 455

<210> 121
 <211> 705
 <212> DNA
 <213> Homo sapiens

<400> 121
 atggacatga ggggtgcccgc tcagctcctg gggctcctgc tgctgtggct gagaggtgcc 60
 agatgtgaca tccagatgac ccagtcctcca tcctccctgt ctgcatctgt aggtgaccgt 120
 gtcacatca cttgccgcgc aagtcaggat attagcagct atttaaattg gtatcagcag 180
 aaaccaggga aagcccctaa gtcctgatc tattctactt cccgtttgaa tagtggggtc 240
 ccatcacgct tcagtggcag tggctctggg acagatttca ctctcacat cagcagtctg 300
 caacctgaag attttgcaac ttactactgt caacaggata ttaaacaccc tacgttcggt 360
 caaggcacca aggtggagat caaacgtacg gtggctgcac catctgtctt catcttcccg 420
 ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc 480
 tatcccagag aggccaaagt acagtggaag gtggataacg ccctccaatc gggtaactcc 540
 caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg 600
 acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt caccatcag 660
 ggccctgagct cgcccgtcac aaagagcttc aacaggggag agtgt 705

<210> 122
 <211> 235
 <212> PRT
 <213> Homo sapiens

<400> 122

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
 1 5 10 15

Leu Arg Gly Ala Arg Cys Asp Ile Gln Met Thr Gln Ser Pro Ser Ser

SEQUENCE LISTING

20

25

30

Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser
35 40 45

Gln Asp Ile Ser Ser Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys
50 55 60

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

Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
85 90 95

Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
100 105 110

Asp Ile Lys His Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
115 120 125

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
130 135 140

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
145 150 155 160

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
165 170 175

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
180 185 190

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
195 200 205

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
210 215 220

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys

SEQUENCE LISTING

225

230

235

<210> 123
<211> 1395
<212> DNA
<213> Homo sapiens

<400> 123
atggactgga cctggaggat cctcttcttg gtggcagcag ccacaggagc ccactccgag 60
gtgcagctgg tgcagtctgg ggctgaggtg aagaagcctg ggtcctcggt gaaggtctcc 120
tgcaaggctt ctggttttac cttcaccgac tatattatgc actgggtgcg tcaggcccct 180
ggccaagggc ttgagtggat gggctatatc aacccttata atgatgacac cgaataacaac 240
gagaagttca agggccgtgt cacgattacc gcggacaaat ccacgagcac agcctacatg 300
gagctgagca gcctgcgctc tgaggacacg gccgtgtatt actgtgcgcg ttcgatttat 360
tactacgatg ccccgtttgc ttactggggc caagggactc tggtcaccgt ctctagtgcc 420
tccaccaagg gcccatcggg cttccccctg gcgccctgct ccaggagcac ctccgagagc 480
acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 540
aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtcctcagga 600
ctctactccc tcagcagcgt ggtgaccgtg ccctccagca acttcggcac ccagacctac 660
acctgcaacg tagatcaciaa gccagcaac accaagggtg acaagacagt tgagcgcaaa 720
tgttgtgtcg agtgcccacc gtgcccagca ccacctgtgg caggaccgtc agtcttcctc 780
ttcccccaa aaccaagga caccctcatg atctcccga cccctgaggt cacgtgcgtg 840
gtgggtggacg tgagccacga agaccccgag gtccagttca actggtacgt ggacggcgtg 900
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gtcagcgtcc tcaccgttgt gcaccaggac tggctgaacg gcaaggagta caagtgaag 1020
gtctccaaca aaggcctccc agccccatc gagaaaacca tctccaaaac caaagggcag 1080
ccccgagaac cacaggtgta caccctgccc ccatcccggg aggagatgac caagaaccag 1140
gtcagcctga cctgcctggt caaaggcttc taccacagcg acatcgccgt ggagtgggag 1200
agcaatgggc agccggagaa caactacaag accacacctc ccatgctgga ctccgacggc 1260
tccttcttcc tctacagcaa gtcaccgtg gacaagagca ggtggcagca ggggaacgtc 1320

SEQUENCE LISTING

ttctcatgct ccgtgatgca tgaggctctg cacaaccact acacgcagaa gaggctctcc 1380

ctgtctccgg gtaaa 1395

<210> 124
<211> 465
<212> PRT
<213> Homo sapiens

<400> 124

Met Asp Trp Thr Trp Arg Ile Leu Phe Leu Val Ala Ala Ala Thr Gly
1 5 10 15

Ala His Ser Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
20 25 30

Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr Phe
35 40 45

Thr Asp Tyr Ile Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
50 55 60

Glu Trp Met Gly Tyr Ile Asn Pro Tyr Asn Asp Asp Thr Glu Tyr Asn
65 70 75 80

Glu Lys Phe Lys Gly Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser
85 90 95

Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Ser Ile Tyr Tyr Tyr Asp Ala Pro Phe Ala Tyr
115 120 125

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
130 135 140

Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser
145 150 155 160

SEQUENCE LISTING

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
165 170 175

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
180 185 190

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
195 200 205

Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val
210 215 220

Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys
225 230 235 240

Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro
245 250 255

Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
260 265 270

Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
275 280 285

Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
290 295 300

Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val
305 310 315 320

Val Ser Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu
325 330 335

Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys
340 345 350

Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
355 360 365

SEQUENCE LISTING

Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr
370 375 380

Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
385 390 395 400

Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu
405 410 415

Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
420 425 430

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
435 440 445

Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
450 455 460

Lys
465

<210> 125
<211> 699
<212> DNA
<213> Homo sapiens

<400> 125
atgggggtcaa ccgccatcct tggcctcctc ctggctgtcc tgcagggagg gcgcgcctcc 60
tatgtgctga ctgagccacc ctcggtgtca gtggccccag gacagacggc caggattacc 120
tgtgggggaa acaaccttgg aagtaaaagt gtgcactggt accagcagaa gccaggccag 180
gcccctgtgc tggctgtcta tgatgatagc gaccggccct catggatccc tgagcgattc 240
tctggctcca actctgggaa cacggccacc ctgaccatca gcaggggcga agccggggat 300
gaggccgact attactgtca ggtgtgggat agtagtagtg atcatgtggt attcggcgga 360
gggaccaagc tgaccgtcct aggccaaccg aaagcggcgc cctcggtcac tctgttcccg 420
ccctcctctg aggagcttca agccaacaag gccacactgg tgtgttcat aagtgacttc 480
taccggggag ccgtgacagt ggcctggaag gcagatagca gcccgtcaa ggcgggagtg 540

SEQUENCE LISTING

gagaccacca caccctccaa acaaagcaac aacaagtacg cggccagcag ctatctgagc 600
 ctgacgcctg agcagtggaa gtccacacaga agctacagct gccaggtcac gcatgaaggg 660
 agcaccgtgg agaagacagt ggcccctaca gaatgttca 699

<210> 126
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 126

Met Gly Ser Thr Ala Ile Leu Gly Leu Leu Leu Ala Val Leu Gln Gly
 1 5 10 15

Gly Arg Ala Ser Tyr Val Leu Thr Gln Pro Pro Ser Val Ser Val Ala
 20 25 30

Pro Gly Gln Thr Ala Arg Ile Thr Cys Gly Gly Asn Asn Leu Gly Ser
 35 40 45

Lys Ser Val His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu
 50 55 60

Val Val Tyr Asp Asp Ser Asp Arg Pro Ser Trp Ile Pro Glu Arg Phe
 65 70 75 80

Ser Gly Ser Asn Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Arg Gly
 85 90 95

Glu Ala Gly Asp Glu Ala Asp Tyr Tyr Cys Gln Val Trp Asp Ser Ser
 100 105 110

Ser Asp His Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
 115 120 125

Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu
 130 135 140

Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe

SEQUENCE LISTING

145 150 155 160

Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val
165 170 175

Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys
180 185 190

Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser
195 200 205

His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu
210 215 220

Lys Thr Val Ala Pro Thr Glu Cys Ser
225 230

<210> 127
<211> 1401
<212> DNA
<213> Homo sapiens

<400> 127
atgggggtcaa cgcctatcct tggcctcctc ctggctgtcc tgcagggagg gcgcgcccag 60
atgcagctgg tggagtctgg gggaggcgtg gtccagcctg ggaggtccct gagactctcc 120
tgtgcagcgt ctggattcac cttcagaacc tatggcatgc actgggtccg ccaggctcca 180
ggcaagggac tggagtgggt ggcagttata tggatatgatg gaagtaataa acactatgca 240
gactccgtga agggccgatt caccatcacc agagacaatt ccaagaacac tctgaatctg 300
caaatgaaca gcctgagagc cgaggacacg gctgtgtatt actgtgagag agcccctcag 360
tgggagctag ttcataaagc ttttgatata tggggccaag ggacaatggg caccgtctct 420
tcagctagca ccaagggccc atcgggtcttc cccctggcgc cctgctccag gagcacctcc 480
gagagcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacgggtg 540
tcgtggaact caggcgctct gaccagcggc gtgcacacct tcccagctgt cctacagtcc 600
tcaggactct actccctcag cagcgtgggtg accgtgccct ccagcaactt cggcaccacg 660
acctacacct gcaacgtaga tcacaagccc agcaacacca aggtggacaa gacagttgag 720

SEQUENCE LISTING

```

cgcaaatgtt gtgtcgagtg cccaccgtgc ccagcaccac ctgtggcagg accgtcagtc      780
ttcctcttcc ccccaaaacc caaggacacc ctcatgatct cccggacccc tgaggtcacg      840
tgcgtgggtg tggacgtgag ccacgaagac cccgaggtcc agttcaactg gtacgtggac      900
ggcgtggagg tgcataatgc caagacaaag ccacgggagg agcagttcaa cagcacgttc      960
cgtgtgggtca gcgtcctcac cgttgtgcac caggactggc tgaacggcaa ggagtacaag     1020
tgcaagggtct ccaacaaagg cctcccagcc cccatcgaga aaaccatctc caaaaccaa      1080
gggcagcccc gagaaccaca ggtgtacacc ctgccccat cccgggagga gatgaccaag     1140
aaccaggtca gcctgacctg cctgggtcaaa ggcttctacc ccagcgacat cgccgtggag     1200
tgggagagca atgggcagcc ggagaacaac tacaagacca cacctcccat gctggactcc     1260
gacggctcct tcttcctcta cagcaagctc accgtggaca agagcaggtg gcagcagggg     1320
aacgtcttct catgctccgt gatgcatgag gctctgcaca accactacac gcagaagagc     1380
ctctccctgt ctccgggtaa a                                              1401

```

```

<210> 128
<211> 467
<212> PRT
<213> Homo sapiens

```

```

<400> 128

```

```

Met Gly Ser Thr Ala Ile Leu Gly Leu Leu Leu Ala Val Leu Gln Gly
1           5           10           15

```

```

Gly Arg Ala Gln Met Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln
          20           25           30

```

```

Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
          35           40           45

```

```

Arg Thr Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
          50           55           60

```

```

Glu Trp Val Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys His Tyr Ala
65           70           75           80

```

SEQUENCE LISTING

Asp Ser Val Lys Gly Arg Phe Thr Ile Thr Arg Asp Asn Ser Lys Asn
85 90 95

Thr Leu Asn Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Ala Pro Gln Trp Glu Leu Val His Glu Ala Phe
115 120 125

Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr
130 135 140

Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser
145 150 155 160

Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
165 170 175

Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
180 185 190

Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
195 200 205

Val Val Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys
210 215 220

Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu
225 230 235 240

Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala
245 250 255

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
260 265 270

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
275 280 285

SEQUENCE LISTING

Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val
290 295 300

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe
305 310 315 320

Arg Val Val Ser Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly
325 330 335

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile
340 345 350

Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val
355 360 365

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
370 375 380

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
385 390 395 400

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
405 410 415

Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
420 425 430

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
435 440 445

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
450 455 460

Pro Gly Lys
465

<210> 129
<211> 702
<212> DNA

SEQUENCE LISTING

<213> Homo sapiens

<400> 129

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atcgaatgtc tagcaagtga ggacatttac agtgatttag catggtatca gcagaagcca      180
gggaaatctc ctcagctcct gatctataat gcaaatagct tgcaaaatgg ggtcccttca      240
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gaagatgtcg cgacttattt ctgtcaacaa tataacaatt atcctccgac gttcgggtgga      360
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gacagtgtta ctgatcagga cagcaaagac agcacgtaca gcatgagcag caccctctcg      600
ttgaccaagg ctgactatga aagtcataac ctctatacct gtgaggttgt tcataagaca      660
tcatcctcac ccgtcgtcaa gagcttcaac aggaatgagt gt                          702

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<210> 130

<211> 234

<212> PRT

<213> Homo sapiens

<400> 130

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Met Gly Val Pro Thr His Leu Leu Gly Leu Leu Leu Leu Trp Ile Thr
1           5           10          15

```

```

His Ala Ile Cys Asp Ile Arg Met Thr Gln Ser Pro Ala Ser Leu Ser
          20          25          30

```

```

Ala Ser Leu Gly Glu Thr Val Asn Ile Glu Cys Leu Ala Ser Glu Asp
          35          40          45

```

```

Ile Tyr Ser Asp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ser Pro
          50          55          60

```

```

Gln Leu Leu Ile Tyr Asn Ala Asn Ser Leu Gln Asn Gly Val Pro Ser

```

SEQUENCE LISTING

65	70	75	80
Arg Phe Ser Gly Ser Gly Ser Gly Thr Gln Tyr Ser Leu Lys Ile Asn	85	90	95
Ser Leu Gln Ser Glu Asp Val Ala Thr Tyr Phe Cys Gln Gln Tyr Asn	100	105	110
Asn Tyr Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu Glu Leu Lys Arg	115	120	125
Ala Asp Ala Ala Pro Thr Val Ser Ile Phe Pro Pro Ser Thr Glu Gln	130	135	140
Leu Ala Thr Gly Gly Ala Ser Val Val Cys Leu Met Asn Asn Phe Tyr	145	150	155
Pro Arg Asp Ile Ser Val Lys Trp Lys Ile Asp Gly Thr Glu Arg Arg	165	170	175
Asp Gly Val Leu Asp Ser Val Thr Asp Gln Asp Ser Lys Asp Ser Thr	180	185	190
Tyr Ser Met Ser Ser Thr Leu Ser Leu Thr Lys Ala Asp Tyr Glu Ser	195	200	205
His Asn Leu Tyr Thr Cys Glu Val Val His Lys Thr Ser Ser Ser Pro	210	215	220
Val Val Lys Ser Phe Asn Arg Asn Glu Cys	225	230	

<210> 131
 <211> 1395
 <212> DNA
 <213> Homo sapiens

<400> 131
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SEQUENCE LISTING

tgtgcagcct caggattcac tttcagtgc tatgccatgg cctgggtccg ccagtctcca	180
aagaagggtc tggagtgggt cgcaaccatt atttatgatg gtagtagcac ttactatcga	240
gactccgtga agggccgatt cactatctcc agagataatg caaaaagcac cctatacctg	300
caaatggaca gtctgaggtc tgaggacacg gccacttatt actgtgcaac aggtctgggt	360
atagctacgg actactttga ttactggggc caaggagtcc tggtcacagt ctcctcagct	420
gaaacaacag ccccatctgt ctatccactg gtccttgga ctgctctcaa aagtaactcc	480
atggtgaccc tgggatgcct ggtcaagggc tatttcctg agccagtcac cgtgacctgg	540
aactctggag ccctgtccag cgggtgtgcac accttcccag ctgtcctgca gtctgggctc	600
tacactctca ccagctcagt gactgtaccc tccagcacct ggcccagcca gaccgtcacc	660
tgcaacgtag cccacccggc cagcagcacc aagggtggaca agaaaattgt gcccagaaac	720
tgtggaggtg attgcaagcc ttgtatatgt acaggctcag aagtatcatc tgtcttcatc	780
ttcccccaa agcccaaaga tgtgctcacc atcactctga ctctaaggt cacgtgtgtt	840
gtggtagaca ttagccagga cgatcccgag gtccatttca gctggtttgt agatgacgtg	900
gaagtccaca cagctcagac tcgaccacca gaggagcagt tcaacagcac tttccgctca	960
gtcagtgaac tccccatcct gcaccaggac tggctcaatg gcaggacgtt cagatgcaag	1020
gtcaccagtg cagctttccc atccccatc gagaaaacca tctccaaacc cgaaggcaga	1080
acacaagttc cgcatgtata caccatgtca cctaccaagg aagagatgac ccagaatgaa	1140
gtcagtatca cctgcatggt aaaaggcttc tatccccag acatttatgt ggagtggcag	1200
atgaacgggc agccacagga aaactacaag aacactccac ctacgatgga cacagatggg	1260
agttacttcc tctacagcaa gctcaatgtg aagaaggaaa aatggcagca gggaaacacg	1320
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cactctccgg gtaaa	1395

<210> 132
 <211> 465
 <212> PRT
 <213> Homo sapiens

<400> 132

SEQUENCE LISTING

Met Asp Ile Arg Leu Ser Leu Ala Phe Leu Val Leu Phe Ile Lys Gly
1 5 10 15

Val Gln Cys Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
20 25 30

Pro Ala Asn Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Ser Asp Tyr Ala Met Ala Trp Val Arg Gln Ser Pro Lys Lys Gly Leu
50 55 60

Glu Trp Val Ala Thr Ile Ile Tyr Asp Gly Ser Ser Thr Tyr Tyr Arg
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Ser
85 90 95

Thr Leu Tyr Leu Gln Met Asp Ser Leu Arg Ser Glu Asp Thr Ala Thr
100 105 110

Tyr Tyr Cys Ala Thr Gly Leu Gly Ile Ala Thr Asp Tyr Phe Asp Tyr
115 120 125

Trp Gly Gln Gly Val Leu Val Thr Val Ser Ser Ala Glu Thr Thr Ala
130 135 140

Pro Ser Val Tyr Pro Leu Ala Pro Gly Thr Ala Leu Lys Ser Asn Ser
145 150 155 160

Met Val Thr Leu Gly Cys Leu Val Lys Gly Tyr Phe Pro Glu Pro Val
165 170 175

Thr Val Thr Trp Asn Ser Gly Ala Leu Ser Ser Gly Val His Thr Phe
180 185 190

Pro Ala Val Leu Gln Ser Gly Leu Tyr Thr Leu Thr Ser Ser Val Thr
195 200 205

SEQUENCE LISTING

Val Pro Ser Ser Thr Trp Pro Ser Gln Thr Val Thr Cys Asn Val Ala
210 215 220

His Pro Ala Ser Ser Thr Lys Val Asp Lys Lys Ile Val Pro Arg Asn
225 230 235 240

Cys Gly Gly Asp Cys Lys Pro Cys Ile Cys Thr Gly Ser Glu Val Ser
245 250 255

Ser Val Phe Ile Phe Pro Pro Lys Pro Lys Asp Val Leu Thr Ile Thr
260 265 270

Leu Thr Pro Lys Val Thr Cys Val Val Val Asp Ile Ser Gln Asp Asp
275 280 285

Pro Glu Val His Phe Ser Trp Phe Val Asp Asp Val Glu Val His Thr
290 295 300

Ala Gln Thr Arg Pro Pro Glu Glu Gln Phe Asn Ser Thr Phe Arg Ser
305 310 315 320

Val Ser Glu Leu Pro Ile Leu His Gln Asp Trp Leu Asn Gly Arg Thr
325 330 335

Phe Arg Cys Lys Val Thr Ser Ala Ala Phe Pro Ser Pro Ile Glu Lys
340 345 350

Thr Ile Ser Lys Pro Glu Gly Arg Thr Gln Val Pro His Val Tyr Thr
355 360 365

Met Ser Pro Thr Lys Glu Glu Met Thr Gln Asn Glu Val Ser Ile Thr
370 375 380

Cys Met Val Lys Gly Phe Tyr Pro Pro Asp Ile Tyr Val Glu Trp Gln
385 390 395 400

Met Asn Gly Gln Pro Gln Glu Asn Tyr Lys Asn Thr Pro Pro Thr Met
405 410 415

SEQUENCE LISTING

Asp Thr Asp Gly Ser Tyr Phe Leu Tyr Ser Lys Leu Asn Val Lys Lys
420 425 430

Glu Lys Trp Gln Gln Gly Asn Thr Phe Thr Cys Ser Val Leu His Glu
435 440 445

Gly Leu His Asn His His Thr Glu Lys Ser Leu Ser His Ser Pro Gly
450 455 460

Lys
465

<210> 133
<211> 711
<212> DNA
<213> Homo sapiens

<400> 133
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accatctcct gcactggaac cagcagtgac gttgggtggtt ataactctgt ctcttggtac 180
caacagcacc caggcaaagc ccccaaactc atgatttatg aggtcagtaa tcggccctca 240
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gggctccagg ctgaggacga ggctgattat tactgcaatt catatacaag caccagcatg 360
gtattcggcg gagggaccaa gctgaccgtc ctaggtcagc ccaaggctgc cccctcggtc 420
actctgttcc cgccctcctc tgaggagctt caagccaaca aggccacact ggtgtgtctc 480
ataagtgact tctaccggg agccgtgaca gtggcctgga aggcagatag cagccccgtc 540
aaggcgggag tggagaccac cacaccctcc aaacaaagca acaacaagta cgcggccagc 600
agctatctga gcctgacgcc tgagcagtgg aagtcccaca gaagctacag ctgccaggtc 660
acgcatgaag ggagcaccgt ggagaagaca gtggccccta cagaatgttc a 711

<210> 134
<211> 237
<212> PRT
<213> Homo sapiens

SEQUENCE LISTING

<400> 134

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 5 10 15

Leu Arg Gly Ala Arg Cys Glu Ser Ala Leu Thr Gln Pro Ala Ser Val
20 25 30

Ser Gly Ser Pro Gly Gln Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser
35 40 45

Ser Asp Val Gly Gly Tyr Asn Ser Val Ser Trp Tyr Gln Gln His Pro
50 55 60

Gly Lys Ala Pro Lys Leu Met Ile Tyr Glu Val Ser Asn Arg Pro Ser
65 70 75 80

Gly Val Ser Asn Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser
85 90 95

Leu Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys
100 105 110

Asn Ser Tyr Thr Ser Thr Ser Met Val Phe Gly Gly Gly Thr Lys Leu
115 120 125

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

Pro Ser Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu
145 150 155 160

Ile Ser Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp
165 170 175

Ser Ser Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln
180 185 190

Ser Asn Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu

SEQUENCE LISTING

195

200

205

Gln Trp Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly
 210 215 220

Ser Thr Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
 225 230 235

<210> 135
 <211> 1380
 <212> DNA
 <213> Homo sapiens

<400> 135
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 tgcaaggctt ctggttacac ctttaaccagc tatggtatca gctgggtgcg acaggcccct 180
 ggacaagggc ttgagtggat gggatgggtc agtttttata atggtaacac aaactatgca 240
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 gagctgagga gcctgagatc tgacgacacg gccgtgtatt actgtgagag aggctacggt 360
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 tcggtcttcc ccctggcgcc ctgctccagg agcacctccg agagcacagc ggccctgggc 480
 tgcctgggtca aggactactt ccccgaaccg gtgacggtgt cgtggaactc aggcgctctg 540
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 cacaagccca gcaacaccaa ggtggacaag acagttgagc gcaaagtgtg tgtcgagtgc 720
 ccaccgtgcc cagcaccacc tgtggcagga ccgtcagtct tcctcttccc cccaaaaccc 780
 aaggacaccc tcatgatctc ccggaccctt gaggtcacgt gcgtgggtgt ggacgtgagc 840
 cacgaagacc ccgaggtcca gttcaactgg tacgtggacg gcgtggaggt gcataatgcc 900
 aagacaaagc cacgggagga gcagttcaac agcacgttcc gtgtggtcag cgtcctcacc 960
 gttgtgcacc aggactggct gaacggcaag gagtacaagt gcaaggtctc caacaaaggc 1020
 ctcccagccc ccatcgagaa aaccatctcc aaaaccaaag ggcagccccg agaaccacag 1080

SEQUENCE LISTING

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gtgtacaccc tgcccccatc ccgggaggag atgaccaaga accaggtcag cctgacctgc      1140
ctggtcaaag gcttctaccc cagcgacatc gccgtggagt gggagagcaa tgggcagccg      1200
gagaacaact acaagaccac acctcccatg ctggactccg acggctcctt cttcctctac      1260
agcaagctca ccgtggacaa gagcaggtgg cagcagggga acgtcttctc atgctccgtg      1320
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```

```

<210> 136
<211> 460
<212> PRT
<213> Homo sapiens

```

```

<400> 136

```

```

Met Asp Trp Thr Trp Arg Ile Leu Phe Leu Val Ala Ala Ala Thr Gly
1           5           10          15

```

```

Val His Ser Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
          20          25          30

```

```

Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Leu
          35          40          45

```

```

Thr Ser Tyr Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
          50          55          60

```

```

Glu Trp Met Gly Trp Val Ser Phe Tyr Asn Gly Asn Thr Asn Tyr Ala
65          70          75          80

```

```

Gln Lys Leu Gln Gly Arg Gly Thr Met Thr Thr Asp Pro Ser Thr Ser
          85          90          95

```

```

Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val
          100          105          110

```

```

Tyr Tyr Cys Ala Arg Gly Tyr Gly Met Asp Val Trp Gly Gln Gly Thr
          115          120          125

```

```

Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro

```

SEQUENCE LISTING

130

135

140

Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly
145 150 155 160

Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
165 170 175

Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln
180 185 190

Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
195 200 205

Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser
210 215 220

Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu Cys
225 230 235 240

Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe
245 250 255

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
260 265 270

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe
275 280 285

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
290 295 300

Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr
305 310 315 320

Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
325 330 335

Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr

SEQUENCE LISTING

340

345

350

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
355 360 365

Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
370 375 380

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
385 390 395 400

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser
405 410 415

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
420 425 430

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
435 440 445

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

<210> 137
<211> 693
<212> DNA
<213> Homo sapiens

<400> 137
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tgctctggag ataaattggg ggataaatat gcttggttgg atcagcagaa gccaggccag 180
tcccctgtgc tggatcatcta tcaagatagc aagcggccct cagggatccc tgagcgattc 240
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gaggctgact attactgtca ggcgtgggac agcagcactg cggtattcgg cggagggacc 360
aagctgaccg tcctaggtca gcccaaggct gcccctcgg tcactctgtt cccgccctcc 420
tctgaggagc ttcaagccaa caaggccaca ctggtgtgtc tcataagtga cttctaccgc 480

SEQUENCE LISTING

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accacaccct ccaaacaaag caacaacaag tacgcgccca gcagctatct gaggctgacg      600
cctgagcagt ggaagtccca cagaagctac agctgccagg tcacgcatga agggagcacc      660
gtggagaaga cagtggcccc tacagaatgt tca                                     693

```

```

<210> 138
<211> 231
<212> PRT
<213> Homo sapiens

```

```

<400> 138

```

```

Met Ala Trp Ile Pro Leu Phe Leu Gly Val Leu Ala Tyr Cys Thr Gly
1           5           10           15

```

```

Ser Val Ala Ser Tyr Glu Val Thr Gln Ala Pro Ser Val Ser Val Ser
          20           25           30

```

```

Pro Gly Gln Thr Ala Ser Ile Thr Cys Ser Gly Asp Lys Leu Gly Asp
        35           40           45

```

```

Lys Tyr Ala Cys Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Val Leu
50           55           60

```

```

Val Ile Tyr Gln Asp Ser Lys Arg Pro Ser Gly Ile Pro Glu Arg Phe
65           70           75           80

```

```

Ser Gly Ser Asn Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Gly Thr
          85           90           95

```

```

Gln Ala Met Asp Glu Ala Asp Tyr Tyr Cys Gln Ala Trp Asp Ser Ser
        100           105           110

```

```

Thr Ala Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gln Pro
        115           120           125

```

```

Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu Leu
130           135           140

```

SEQUENCE LISTING

Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr Pro
145 150 155 160

Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys Ala
165 170 175

Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr Ala
180 185 190

Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His Arg
195 200 205

Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys Thr
210 215 220

Val Ala Pro Thr Glu Cys Ser
225 230

<210> 139
<211> 1401
<212> DNA
<213> Homo sapiens

<400> 139
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tgcaaggctt ctggttacac ctttaccagt tatggtctca gctgggtgcg acaggcccct 180
ggacaagggc ttgagtggat gggatggatc atcccttaca atggtaacac aaactctgca 240
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gagctgagga gcctgagatc tgacgacacg gccgtgtatt tctgtgagag agacagggac 360
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gagagcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacggtg 540
tcgtggaact caggcgtctt gaccagcggc gtgcacacct tcccagctgt cctacagtcc 600
tcaggactct actccctcag cagcgtggtg accgtgccct ccagcaactt cggcacccag 660

SEQUENCE LISTING

```

acctacacct gcaacgtaga tcacaagccc agcaacacca aggtggacaa gacagttgag      720
cgcaaagtgt gtgtcgagtg cccaccgtgc ccagcaccac ctgtggcagg accgtcagtc      780
ttcctcttcc ccccaaaacc caaggacacc ctcatgatct cccggacccc tgaggtcacg      840
tgcgtggtgg tggacgtgag ccacgaagac cccgaggtcc agttcaactg gtacgtggac      900
ggcgtggagg tgcataatgc caagacaaag ccacgggagg agcagttcaa cagcacgttc      960
cgtgtggtca gcgtcctcac cgttgtgcac caggactggc tgaacggcaa ggagtacaag     1020
tgcaaggctct ccaacaaagg cctcccagcc cccatcgaga aaaccatctc caaaaccaa      1080
gggcagcccc gagaaccaca ggtgtacacc ctgcccccat cccgggagga gatgaccaag     1140
aaccaggtca gcctgacctg cctgggtcaaa ggcttctacc ccagcgacat cgccgtggag     1200
tgggagagca atgggcagcc ggagaacaac tacaagacca cacctcccat gctggactcc     1260
gacggctcct tcttcctcta cagcaagctc accgtggaca agagcaggtg gcagcagggg     1320
aacgtcttct catgctccgt gatgcatgag gctctgcaca accactacac gcagaagagc     1380
ctctccctgt ctccgggtaa a                                              1401

```

```

<210> 140
<211> 467
<212> PRT
<213> Homo sapiens

```

```

<400> 140

```

```

Met Asp Trp Thr Trp Ser Ile Leu Phe Leu Val Ala Ala Ala Thr Gly
1           5           10          15

```

```

Ala His Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
          20           25           30

```

```

Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
          35           40           45

```

```

Thr Ser Tyr Gly Leu Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
          50           55           60

```

```

Glu Trp Met Gly Trp Ile Ile Pro Tyr Asn Gly Asn Thr Asn Ser Ala

```

SEQUENCE LISTING

65	70	75	80
Gln Lys Leu Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser	85	90	95
Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val	100	105	110
Tyr Phe Cys Ala Arg Asp Arg Asp Tyr Gly Val Asn Tyr Asp Ala Phe	115	120	125
Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr	130	135	140
Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser	145	150	155
Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu	165	170	175
Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His	180	185	190
Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser	195	200	205
Val Val Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys	210	215	220
Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu	225	230	235
Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala	245	250	255
Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met	260	265	270
Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His			

SEQUENCE LISTING

275

280

285

Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val
290 295 300

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe
305 310 315 320

Arg Val Val Ser Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly
325 330 335

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile
340 345 350

Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val
355 360 365

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
370 375 380

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
385 390 395 400

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
405 410 415

Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
420 425 430

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
435 440 445

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
450 455 460

Pro Gly Lys
465

<210> 141

SEQUENCE LISTING

<211> 705
<212> DNA
<213> Homo sapiens

<400> 141
atggcctggg ctccactact tctcaccctc ctcgctcact gcacaggttc ttgggccaat 60
tttatgctga ctcagcccca ctctgtgtcg gagtctccgg ggaagacggt ggccatctcc 120
tgcacccgca acagtggcag cattgccagc aactctgtgc agtggtacca gcagcgcccc 180
ggcagttccc ccaccactgt gatctttgag gataacaaa gaccctctgg ggtccctgat 240
cggttctctg gtcctcatga cagctcctcc aactctgcct ccctcaccat ctctggtctg 300
aagactgagg acgaggctga ctactactgt cagtcttatg atagcaacaa ttgggtgttc 360
ggcggaggga ccaaactgac cgtcctaggt cagcccaagg ccaacccac tgtcactctg 420
ttcccgccct cctctgagga gtcctcaagcc aacaaggcca cactagtgtg tctgatcagt 480
gacttctacc cgggagctgt gacagtggcc tggaaggcag atggcagccc cgtcaaggcg 540
ggagtggaga ccaccaaacc ctccaaacag agcaacaaca agtacgcggc cagcagctac 600
ctgagcctga cgcccagca gtggaagtcc cacagaagct acagctgcca ggtcacgcat 660
gaaggagca ccgtggagaa gacagtggcc cctacagaat gttca 705

<210> 142
<211> 235
<212> PRT
<213> Homo sapiens

<400> 142
Met Ala Trp Ala Pro Leu Leu Leu Thr Leu Leu Ala His Cys Thr Gly
1 5 10 15
Ser Trp Ala Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Glu Ser
20 25 30
Pro Gly Lys Thr Val Ala Ile Ser Cys Thr Arg Asn Ser Gly Ser Ile
35 40 45
Ala Ser Asn Ser Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro
50 55 60

SEQUENCE LISTING

Thr Thr Val Ile Phe Glu Asp Asn Gln Arg Pro Ser Gly Val Pro Asp
65 70 75 80

Arg Phe Ser Gly Ser Ile Asp Ser Ser Ser Asn Ser Ala Ser Leu Thr
85 90 95

Ile Ser Gly Leu Lys Thr Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser
100 105 110

Tyr Asp Ser Asn Asn Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val
115 120 125

Leu Gly Gln Pro Lys Ala Asn Pro Thr Val Thr Leu Phe Pro Pro Ser
130 135 140

Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser
145 150 155 160

Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Gly Ser
165 170 175

Pro Val Lys Ala Gly Val Glu Thr Thr Lys Pro Ser Lys Gln Ser Asn
180 185 190

Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp
195 200 205

Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr
210 215 220

Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
225 230 235

<210> 143
<211> 1410
<212> DNA
<213> Homo sapiens

<400> 143
atggagtttg ggctgagctg ggttttcctc gttgctcttt taagaggtgt ccagtgtcag

60

SEQUENCE LISTING

gtgcagctgg tggagtctgg gggaggcgtg gtccagcctg ggaggtccct gagactctcc	120
tgtgcagcgt ctggattcac cttcagtagc tatgtcatgc actgggtccg ccaggctcca	180
ggcaaggggc tggagtgggt ggctgttata tggatatgatg gaagtaataa atactatgca	240
gactccgtga agggccgatt caccatctcc agagacaatt ccaagaacac gctgtatctg	300
caaatgaaca gcctgagagc cgaggacacg gctgtgtatt actgtgagag agaggggtat	360
gactacgggtg aagactacta ctactacgggt atggacgtct ggggccaagg gaccacggtc	420
accgtctcta gtgcctccac caagggccca tcggtcttcc ccctggcgcc ctgctccagg	480
agcacctccg agagcacagc ggccctgggc tgcctgggtca aggactactt ccccgaaccg	540
gtgacgggtg cgtggaactc aggcgctctg accagcggcg tgcacacctt cccagctgtc	600
ctacagtcct caggactcta ctccctcagc agcgtgggtga ccgtgccctc cagcaacttc	660
ggcacccaga cctacacctg caacgtagat cacaagccca gcaacaccaa ggtggacaag	720
acagttgagc gcaaatgttg tgtcgagtgc ccaccgtgcc cagcaccacc tgtggcagga	780
ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggaccctt	840
gaggtcacgt gcgtgggtggg ggacgtgagc cacgaagacc ccgaggtcca gttcaactgg	900
tacgtggacg gcgtggaggt gcataatgcc aagacaaagc cacgggagga gcagttcaac	960
agcacgttcc gtgtgggtcag cgtcctcacc gttgtgcacc aggactggct gaacggcaag	1020
gagtacaagt gcaaggctct caacaaaggc ctcccagccc ccatcgagaa aaccatctcc	1080
aaaaccaaag ggagccccg agaaccacag gtgtacaccc tgccccatc ccgggaggag	1140
atgaccaaga accaggtcag cctgacctgc ctggtcaaag gcttctatcc cagcgacatc	1200
gccgtggagt gggagagcaa tgggcagccg gagaacaact acaagaccac acctcccatg	1260
ctggactccg acggctcctt cttcctctac agcaagctca ccgtggacaa gagcaggtgg	1320
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	1380
cagaagagcc tctccctgtc tccgggtaaa	1410

<210> 144
 <211> 470
 <212> PRT
 <213> Homo sapiens

SEQUENCE LISTING

<400> 144

Met Glu Phe Gly Leu Ser Trp Val Phe Leu Val Ala Leu Leu Arg Gly
1 5 10 15

Val Gln Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln
20 25 30

Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Ser Ser Tyr Val Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
85 90 95

Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Glu Gly Tyr Asp Tyr Gly Glu Asp Tyr Tyr Tyr
115 120 125

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
130 135 140

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
145 150 155 160

Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
165 170 175

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
180 185 190

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser

SEQUENCE LISTING

195

200

205

Leu Ser Ser Val Val Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr
 210 215 220

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
 225 230 235 240

Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro
 245 250 255

Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
 260 265 270

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
 275 280 285

Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly
 290 295 300

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn
 305 310 315 320

Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val His Gln Asp Trp
 325 330 335

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro
 340 345 350

Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu
 355 360 365

Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn
 370 375 380

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
 385 390 395 400

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr

SEQUENCE LISTING

405

410

415

Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
420 425 430

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
435 440 445

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
450 455 460

Ser Leu Ser Pro Gly Lys
465 470

<210> 145
<211> 708
<212> DNA
<213> Homo sapiens

<400> 145
atggacatga gggccccgc tcagctcctg gggctcctgc tactctggct ccgaggtgcc 60
agatgtgaca tccagatgac ccagtctcca tcctccctct ccgcatccgt aggcgaccgc 120
gtaaccataa catgtagagc atctcaagat atttccaact atttgaattg gtaccaacaa 180
aaacccggca aagcacctaa actcctcatt tactatacat caagactcct ctccggcggtt 240
ccatcacgat tctcaggctc cggctccggc acagatttca cactcactat ttctccctc 300
caaccagaag attttgcaac ctattactgt caacaaggcg atacactccc atacacattc 360
ggcggcggca caaaagttga aattaaacgt acggtggctg caccatctgt cttcatcttc 420
ccgccatctg atgagcagtt gaaatctgga actgcctctg ttgtgtgcct gctgaataac 480
ttctatccca gagaggccaa agtacagtgg aaggtggata acgccctcca atcgggtaac 540
tcccaggaga gtgtcacaga gcaggacagc aaggacagca cctacagcct cagcagcacc 600
ctgacgctga gcaaagcaga ctacgagaaa cacaaagtct acgcctgcga agtcacccat 660
cagggcctga gctcgcccggt cacaaagagc ttcaacaggg gagagtgt 708

<210> 146
<211> 236

SEQUENCE LISTING

<212> PRT

<213> Homo sapiens

<400> 146

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 5 10 15

Leu Arg Gly Ala Arg Cys Asp Ile Gln Met Thr Gln Ser Pro Ser Ser
20 25 30

Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser
35 40 45

Gln Asp Ile Ser Asn Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys
50 55 60

Ala Pro Lys Leu Leu Ile Tyr Tyr Thr Ser Arg Leu Leu Ser Gly Val
65 70 75 80

Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
85 90 95

Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
100 105 110

Gly Asp Thr Leu Pro Tyr Thr Phe Gly Gly Gly Thr Lys Val Glu Ile
115 120 125

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
130 135 140

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
145 150 155 160

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
165 170 175

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
180 185 190

SEQUENCE LISTING

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
195 200 205

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
210 215 220

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 147
<211> 1404
<212> DNA
<213> Homo sapiens

<400> 147
atggactgga cctggaggat cctcttcttg gtggcagcag ccacaggagc ccactccgag 60
gtgcagctgg tgcagagcgg cgccgaggta aaaaaaccag gagcaagcgt taaagtttct 120
tgtaaagcaa gcggatatac atttacagat tacaacatgc attgggtaag acaagcgcca 180
ggacaaggat tggaatggat gggcgaaatt aaccctaata gtggaggagc aggctacaat 240
caaaaattca aaggagagat tacaatgaca acagacacaa gcacttcaac agcatatatg 300
gaactgcgat cacttagaag cgacgataca gctgtatact attgcgcacg acttgggtat 360
gatgatatat atgatgactg gtatttcgat gtttggggcc agggaacaac agttaccgtc 420
tctagtgcct ccaccaaggg cccatcggtc ttccccctgg cgccctgctc caggagcacc 480
tccgagagca cagcggccct gggctgcctg gtcaaggact acttccccga accggtgacg 540
gtgtcgtgga actcaggcgc tctgaccagc ggcgtgcaca ctttcccagc tgtcctacag 600
tcctcaggac tctactccct cagcagcgtg gtgaccgtgc cctccagcaa cttcggcacc 660
cagacctaca cctgcaacgt agatcacaag cccagcaaca ccaaggtgga caagacagtt 720
gagcgcaaat gttgtgtcga gtgcccaccg tgcccagcac cacctgtggc aggaccgtca 780
gtcttcctct tcccccaaa acccaaggac accctcatga tctcccggac ccctgaggtc 840
acgtgcgtgg tgggtggacgt gagccacgaa gaccccgagg tccagttcaa ctggtacgtg 900
gacggcgtgg aggtgcataa tgccaagaca aagccacggg aggagcagtt caacagcacg 960
ttccgtgtgg tcagcgtcct caccgttgtg caccaggact ggctgaacgg caaggagtac 1020

SEQUENCE LISTING

```

aagtgaagg tctccaaca aggcctccca gcccccatcg agaaaaccat ctccaaaacc 1080
aaagggcagc cccgagaacc acaggtgtac accctgcccc catcccggga ggagatgacc 1140
aagaaccagg tcagcctgac ctgcctggtc aaaggcttct accccagcga catcgccgtg 1200
gagtgggaga gcaatgggca gccggagaac aactacaaga ccacacctcc catgctggac 1260
tccgacggct ctttcttct ctacagcaag ctcaccgtgg acaagagcag gtggcagcag 1320
gggaacgtct tctcatgctc cgtgatgcat gaggctctgc acaaccacta cacgcagaag 1380
agcctctccc tgtctccggg taaa 1404

```

```

<210> 148
<211> 468
<212> PRT
<213> Homo sapiens

```

```

<400> 148

```

```

Met Asp Trp Thr Trp Arg Ile Leu Phe Leu Val Ala Ala Ala Thr Gly
1           5           10          15

```

```

Ala His Ser Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
20           25          30

```

```

Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
35           40          45

```

```

Thr Asp Tyr Asn Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
50           55          60

```

```

Glu Trp Met Gly Glu Ile Asn Pro Asn Ser Gly Gly Ala Gly Tyr Asn
65           70          75          80

```

```

Gln Lys Phe Lys Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser
85           90          95

```

```

Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val
100          105         110

```

```

Tyr Tyr Cys Ala Arg Leu Gly Tyr Asp Asp Ile Tyr Asp Asp Trp Tyr

```

SEQUENCE LISTING

115

120

125

Phe Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser
 130 135 140

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr
 145 150 155 160

Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
 165 170 175

Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
 180 185 190

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
 195 200 205

Ser Val Val Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr
 210 215 220

Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val
 225 230 235 240

Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val
 245 250 255

Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
 260 265 270

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
 275 280 285

His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu
 290 295 300

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr
 305 310 315 320

Phe Arg Val Val Ser Val Leu Thr Val Val His Gln Asp Trp Leu Asn

SEQUENCE LISTING

325

330

335

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro
340 345 350

Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln
355 360 365

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
370 375 380

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
385 390 395 400

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
405 410 415

Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
420 425 430

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
435 440 445

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
450 455 460

Ser Pro Gly Lys
465

<210> 149
<211> 720
<212> DNA
<213> Homo sapiens

<400> 149
atggtgttgc agaccaggt cttcatttct ctgttgctct ggatctctgg tgcctacggg 60
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 120
atcaactgca agtccagcca gagtgtttta gacagctccg acaataagaa ctacttagct 180
tggtaccagc agaaaccagg acagcctcct aagctgctca ttactgggc atctaaccgg 240

SEQUENCE LISTING

```

gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc      300
atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttatagtgat      360
ccattcactt tcggccctgg gaccaaagtg gatatcaaac gtacggtggc tgcaccatct      420
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc      480
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgcctc      540
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc      600
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc      660
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt      720

```

```

<210> 150
<211> 240
<212> PRT
<213> Homo sapiens

```

```

<400> 150

```

```

Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
1           5           10           15

```

```

Gly Ala Tyr Gly Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala
20           25           30

```

```

Val Ser Leu Gly Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser
35           40           45

```

```

Val Leu Asp Ser Ser Asp Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln
50           55           60

```

```

Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Asn Arg
65           70           75           80

```

```

Glu Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp
85           90           95

```

```

Phe Thr Leu Thr Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr
100          105          110

```

SEQUENCE LISTING

Tyr Cys Gln Gln Tyr Tyr Ser Asp Pro Phe Thr Phe Gly Pro Gly Thr
115 120 125

Lys Val Asp Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe
130 135 140

Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys
145 150 155 160

Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val
165 170 175

Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln
180 185 190

Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser
195 200 205

Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His
210 215 220

Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235 240

<210> 151
<211> 1395
<212> DNA
<213> Homo sapiens

<400> 151
atggactgga cctggagcat ctttttcttg gtggcagcac caacaggtgc cactcccag 60
gttcagctgg tgcagtctgg agctgaggtg aagaagcctg gggcctcagt gaaggtctcc 120
tgcaaggctt ctggttacac ctttaccagc tatggtatca gctgggtgcg acaggcccct 180
ggacaagggc ttgagtggat gggatggatc agcgcttaca atggtaacac aaactatgca 240
cagaagctcc agggcagagt caccatgacc acagacacat ccacgagcac agcctacatg 300
gagctgagga gcctgagatc tgacgacacg gccgtgtatt actgtgagag agagtcgtgg 360
ttcggggagg tattctttga ctactggggc cagggaaccc tggtcaccgt ctctcagct 420

SEQUENCE LISTING

```

agcaccaagg gcccatcggg cttccccctg gcgccctgct ccaggagcac ctccgagagc      480
acagcgggcc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg      540
aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtcctcagga      600
ctctactccc tcagcagcgt ggtgaccgtg ccctccagca acttcggcac ccagacctac      660
acctgcaacg tagatcacia gccagcaac accaaggtgg acaagacagt tgagcgcaaa      720
tggtgtgtcg agtgcccacc gtgcccagca ccacctgtgg caggaccgtc agtcttcctc      780
ttcccccaa aaccaagga caccctcatg atctcccga cccctgaggt cacgtgcgtg      840
gtggtggacg tgagccacga agaccccgag gtccagttca actggtacgt ggacggcgtg      900
gaggtgcata atgccaagac aaagccacgg gaggagcagt tcaacagcac gttccgtgtg      960
gtcagcgtcc tcaccgttgt gcaccaggac tggctgaacg gcaaggagta caagtgaag     1020
gtctccaaca aaggcctccc agcccccatc gagaaaacca tctccaaaac caaagggcag     1080
ccccgagaac cacaggtgta caccctgccc ccatcccggg aggagatgac caagaaccag     1140
gtcagcctga cctgcctggg caaaggcttc taccacagcg acatcgccgt ggagtgggag     1200
agcaatgggc agccggagaa caactacaag accacacctc ccatgctgga ctccgacggc     1260
tccttcttcc tctacagcaa gtcaccgtg gacaagagca ggtggcagca ggggaacgtc     1320
ttctcatgct ccgtgatgca tgaggctctg cacaaccact acacgcagaa gagcctctcc     1380
ctgtctccgg gtaaa                                                    1395

```

<210> 152
 <211> 465
 <212> PRT
 <213> Homo sapiens

<400> 152

```

Met Asp Trp Thr Trp Ser Ile Leu Phe Leu Val Ala Ala Pro Thr Gly
1           5           10          15

```

```

Ala His Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
          20          25          30

```

```

Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe

```

SEQUENCE LISTING

35

40

45

Thr Ser Tyr Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
50 55 60

Glu Trp Met Gly Trp Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala
65 70 75 80

Gln Lys Leu Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser
85 90 95

Thr Ala Tyr Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Glu Ser Trp Phe Gly Glu Val Phe Phe Asp Tyr
115 120 125

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
130 135 140

Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser
145 150 155 160

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
165 170 175

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
180 185 190

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
195 200 205

Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val
210 215 220

Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys
225 230 235 240

Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro

SEQUENCE LISTING

245

250

255

Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
 260 265 270

Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
 275 280 285

Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
 290 295 300

Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val
 305 310 315 320

Val Ser Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu
 325 330 335

Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys
 340 345 350

Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
 355 360 365

Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr
 370 375 380

Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
 385 390 395 400

Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu
 405 410 415

Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
 420 425 430

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
 435 440 445

Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly

SEQUENCE LISTING

450

455

460

Lys
465

<210> 153
<211> 708
<212> DNA
<213> Homo sapiens

<400> 153
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cgctgtgaca tccagatgac ccagtcctcca tcttccgtgt ctgcatctgt aggagacaga 120
gtcaccatca cttgtcgggc gagtcagggt attagcagct ggtagcctg gtatcaacag 180
aaaccaggga aagcccctaa gctcctgata tatggtgcat ccaatttgga aagtgggggtc 240
ccatcaaggt tcagcggcag tggatctggg acagatttca ctctcaccat cagcagcctg 300
cagcctgaag attttgcaaa ttactattgt caacaggcta acagtttccc gtggacgttc 360
ggccaaggga ccaaggtgga aatcaaactg acgggtggctg caccatctgt cttcatcttc 420
ccgccatctg atgagcagtt gaaatctgga actgcctctg ttgtgtgcct gctgaataac 480
ttctatccca gagaggccaa agtacagtgg aagggtgata acgccctcca atcgggtaac 540
tcccaggaga gtgtcacaga gcaggacagc aaggacagca cctacagcct cagcagcacc 600
ctgacgctga gcaaagcaga ctacgagaaa cacaaagtct acgcctgcga agtcacccat 660
cagggcctga gctcgcccggt cacaaagagc ttcaacaggg gagagtgt 708

<210> 154
<211> 236
<212> PRT
<213> Homo sapiens

<400> 154

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 5 10 15

Leu Arg Gly Ala Arg Cys Asp Ile Gln Met Thr Gln Ser Pro Ser Ser
20 25 30

SEQUENCE LISTING

Val Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser
35 40 45

Gln Gly Ile Ser Ser Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
50 55 60

Ala Pro Lys Leu Leu Ile Tyr Gly Ala Ser Asn Leu Glu Ser Gly Val
65 70 75 80

Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
85 90 95

Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Asn Tyr Tyr Cys Gln Gln
100 105 110

Ala Asn Ser Phe Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
115 120 125

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
130 135 140

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
145 150 155 160

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
165 170 175

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
180 185 190

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
195 200 205

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
210 215 220

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

SEQUENCE LISTING

<210> 155
<211> 1398
<212> DNA
<213> Homo sapiens

<400> 155
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cgctgtcagg tccagctggg acagtctggg gctgaggtga agaagcctgg ggcctcagtg 120
aaggtctcct gcaaggtttc cggatacacc ctcaagtatt tatccatcca ctgggtgcga 180
caggctcctg gaaaagggtc tgagtggatg ggaggttttg atcctcaaga tgggtgaaaca 240
atctacgcac agaagttcca gggcagagtc accatgaccg aggacacatc tacagacaca 300
gcctacatgg agctgagcag cctgaaatct gaggacacgg ccgtgtatta ctgcgcaacg 360
gggagcagct cgtcctgggt cgacccctgg ggccaggga ccctgggtcac cgtctctagt 420
gcctccacca agggcccatc ggtcttcccc ctggcgccct gctccaggag cacctccgag 480
agcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggg gacggtgtcg 540
tggaactcag gcgctctgac cagcggcgtg cacaccttcc cagctgtcct acagtcctca 600
ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcaacttcgg caccagacc 660
tacacctgca acgtagatca caagcccagc aacaccaagg tggacaagac agttgagcgc 720
aaatgtttgtg tcgagtgtcc accgtgtcca gcaccacctg tggcaggacc gtcagtcttc 780
ctcttcccc caaaaccaa ggacaccctc atgatctccc ggacccctga ggtcacgtgc 840
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gtggaggtgc ataatgcaa gacaaagcca cgggaggagc agttcaacag cacgttccgt 960
gtggtcagcg tcctcaccgt tgtgcaccag gactggctga acggcaagga gtacaagtgc 1020
aaggtctcca acaaaggcct ccagccccc atcgagaaaa ccatctcaa aaccaaaggg 1080
cagccccgag aaccacaggt gtacaccctg ccccatccc gggaggagat gaccaagaac 1140
caggtcagcc tgacctgcct ggtcaaaggc ttctaccca gcgacatcgc cgtggagtgg 1200
gagagcaatg ggcagccgga gaacaactac aagaccacac ctcccatgct ggactccgac 1260
ggctccttct tcctctacag caagctcacc gtggacaaga gcaggtggca gcaggggaac 1320
gtcttctcat gtcctgtgat gcatgaggct ctgcacaacc actacacgca gaagagcctc 1380

SEQUENCE LISTING

tccctgtctc cgggtaaa

1398

<210> 156
<211> 466
<212> PRT
<213> Homo sapiens

<400> 156

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 5 10 15

Leu Arg Gly Ala Arg Cys Gln Val Gln Leu Val Gln Ser Gly Ala Glu
20 25 30

Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Val Ser Gly
35 40 45

Tyr Thr Leu Ser Asp Leu Ser Ile His Trp Val Arg Gln Ala Pro Gly
50 55 60

Lys Gly Leu Glu Trp Met Gly Gly Phe Asp Pro Gln Asp Gly Glu Thr
65 70 75 80

Ile Tyr Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Glu Asp Thr
85 90 95

Ser Thr Asp Thr Ala Tyr Met Glu Leu Ser Ser Leu Lys Ser Glu Asp
100 105 110

Thr Ala Val Tyr Tyr Cys Ala Thr Gly Ser Ser Ser Ser Trp Phe Asp
115 120 125

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

Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu
145 150 155 160

Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro

SEQUENCE LISTING

165

170

175

Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr
180 185 190

Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val
195 200 205

Val Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn
210 215 220

Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg
225 230 235 240

Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly
245 250 255

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
260 265 270

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
275 280 285

Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
290 295 300

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg
305 310 315 320

Val Val Ser Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys
325 330 335

Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu
340 345 350

Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
355 360 365

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu

SEQUENCE LISTING

370

375

380

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
385 390 395 400

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met
405 410 415

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
420 425 430

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
435 440 445

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
450 455 460

Gly Lys
465

<210> 157
<211> 702
<212> DNA
<213> Homo sapiens

<400> 157
atggagaccc ctgcccagct gctgttcctg ctgctgctgt ggctgcccga cacaaccggc 60
gaaatcgtca tgacacagag ccctgccaca ctgtccgtga gccctggaga gagggctacc 120
ctgagctgca gggcttccca gagcgtgagc agcaacctgg cctggtacca acagaagcct 180
ggccaggccc ctaggctgct gatctacggc gctgctacca gggccaccgg tattcctgcc 240
agggtgtccg gctccggatc cggcaccgag tttaccctga ccatcagcag cctgcagagc 300
gaggacttcg ccgtgtacta ctgtcagcaa tacaacaact ggcccctgac ctttggcggc 360
ggcaccaagg tggagatcaa gaggacagtg gccgccccca gcgtgttcat cttccctccc 420
agcgacgagc agctgaagag cggcaccgcc agcgtggtgt gtctgctgaa caacttctac 480
cccagggagg ccaaggtgca gtggaaggtg gacaacgccc tgcaagtccg caactcccag 540
gagtccgtga ccgagcagga ctccaaggac tccacctact ccctgtcctc caccctgacc 600

SEQUENCE LISTING

ctgtccaagg ccgactacga gaagcacaag gtgtacgcct gcgaggtgac ccaccagggc 660

ctgtcctccc ctgtgaccaa gagcttcaac aggggcgagt gc 702

<210> 158

<211> 234

<212> PRT

<213> Homo sapiens

<400> 158

Met Glu Thr Pro Ala Gln Leu Leu Phe Leu Leu Leu Leu Trp Leu Pro
1 5 10 15

Asp Thr Thr Gly Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser
20 25 30

Val Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser
35 40 45

Val Ser Ser Asn Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro
50 55 60

Arg Leu Leu Ile Tyr Gly Ala Ala Thr Arg Ala Thr Gly Ile Pro Ala
65 70 75 80

Arg Val Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser
85 90 95

Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn
100 105 110

Asn Trp Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
115 120 125

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
130 135 140

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
145 150 155 160

SEQUENCE LISTING

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
165 170 175

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
180 185 190

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
195 200 205

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
210 215 220

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230

<210> 159
<211> 1416
<212> DNA
<213> Homo sapiens

<400> 159
atggatatgc gggtcctgc tcagctgctg ggactgctgc tgctgtggct gaggggcgcc 60
aggtgtcagg tgcagctggt cgaaagcgga ggaggagtgg tgcagcccgg aaggtccctg 120
aggctgtcct gcgccgctag cggcttcacc ttttccaact acggcatgca ctgggtgagg 180
caagcccctg gagagggcct ggaatgggtg gctgctatct ggttcgacgc cagcgacaag 240
tactatgccg acgctgtgaa gggccggttc accatcagca gggacaacag caagaacacc 300
ctctacctgc agatgaacag cctccgggcc gaggacaccg ctgtctatta ctgtgccagg 360
gaccaggcca tcttcggagt ggtccccgat tactggggcc agggaaccct ggtgaccgtg 420
tcctccgctt ccacaaaggg acctagcgtg ttccctctgg ccctagcag caagtccaca 480
agcggaggaa cagccgccct gggctgtctc gtgaaggact attttcccga gcccgtagacc 540
gtgtcctgga actccggagc cctgacctcc ggcgtgcata cattccccgc tgtcctgcag 600
tccagcggcc tctactccct gtcctccgtg gtcaccgtgc ctagcagcag cctgggcacc 660
cagacataca tctgcaacgt caaccacaag ctttccaaca ccaaggtgga caagaaggtg 720
gagcccaagt cctgtgacaa gaccacacc tgtcctccct gtcctgctcc tgagctgctg 780

SEQUENCE LISTING

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ggaggcccct ccgtcttcct gttccctccc aagcccaagg acaccctgat gatctccagg      840
acccctgaag tgacatgtgt ggtggtggat gtgagccacg aagatcccga ggtgaagttc      900
aactggtacg tggacggcgt ggaggtgcac aacgctaaaa caaagccctg cgaggagcag      960
tacggatcca cctacaggtg cgtgtccgtg ctcaccgtgc tccatcagga ctggctgaac     1020
ggaaaagagt acaagtgcaa agtcagcaat aaggccctgc cggcccctat cgagaaaacc     1080
atcagcaagg ccaaaggcca gcccaggagg cctcaggtgt atacctgcc tccctccagg     1140
gaggagatga ccaagaacca ggtgagcctg acctgcctcg tgaagggtt ttatccctcc     1200
gacatcgctg tggagtggga gagcaatggc cagcctgaaa acaactacaa aaccaccccc     1260
cctgtgctgg atagcgacgg cagcttcttc ctctactcca agctgaccgt cgataagtcc     1320
cggtaggcagc agggcaacgt gtttagctgc agcgtgatgc acgaagccct gcataaccac     1380
tacaccaga agagcctgag cctcagcccc ggaaag                                1416

```

```

<210> 160
<211> 472
<212> PRT
<213> Homo sapiens

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<400> 160

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```

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1           5           10           15

```

```

Leu Arg Gly Ala Arg Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly
          20           25           30

```

```

Val Val Gln Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
          35           40           45

```

```

Phe Thr Phe Ser Asn Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly
          50           55           60

```

```

Glu Gly Leu Glu Trp Val Ala Ala Ile Trp Phe Asp Ala Ser Asp Lys
65           70           75           80

```

```

Tyr Tyr Ala Asp Ala Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn

```

SEQUENCE LISTING

85

90

95

Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
100 105 110

Thr Ala Val Tyr Tyr Cys Ala Arg Asp Gln Ala Ile Phe Gly Val Val
115 120 125

Pro Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser
130 135 140

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
145 150 155 160

Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
165 170 175

Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
180 185 190

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
195 200 205

Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
210 215 220

Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val
225 230 235 240

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
245 250 255

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
260 265 270

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
275 280 285

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val

SEQUENCE LISTING

290

295

300

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln
305 310 315 320

Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln
325 330 335

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
340 345 350

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
355 360 365

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
370 375 380

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
385 390 395 400

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
405 410 415

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
420 425 430

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
435 440 445

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
450 455 460

Ser Leu Ser Leu Ser Pro Gly Lys
465 470

<210> 161
<211> 702
<212> DNA
<213> Homo sapiens

SEQUENCE LISTING

<400> 161
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gaaatcgtcc tgacacagag ccctgccaca ctgtccctga gccctggaga gagggtacc 120
ctgagctgca gggcttccca gagcgtgagc agcaacctgg cctggtacca acagaagcct 180
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agggtgtccg gctccggatc cggcaccgag tttaccctga ccatcagccg cctggagccc 300
gaggacttcg ccgtgtacta ctgtcagcaa tacaacaact ggcccctgac ctttggcggc 360
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agcgacgagc agctgaagag cggcaccgcc agcgtggtgt gtctgctgaa caacttctac 480
cccagggagg ccaaggtgca gtggaagggtg gacaacgccc tgcagtccgg caactcccag 540
gagtccgtga ccgagcagga ctccaaggac tccacctact ccctgtcctc caccctgacc 600
ctgtccaagg ccgactacga gaagcacaag gtgtacgcct gcgaggtgac ccaccagggc 660
ctgtcctccc ctgtgaccaa gagcttcaac aggggcgagt gc 702

<210> 162
<211> 234
<212> PRT
<213> Homo sapiens

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

SEQUENCE LISTING

Arg Val Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser
85 90 95

Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn
100 105 110

Asn Trp Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
115 120 125

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
130 135 140

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
145 150 155 160

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
165 170 175

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
180 185 190

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
195 200 205

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
210 215 220

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230

<210> 163
<211> 1416
<212> DNA
<213> Homo sapiens

<400> 163
atggatatgc gggtcctgc tcagctgctg ggactgctgc tgctgtggct gaggggcgcc 60
agggtgtgagg tgcagctggt cgaaagcgga ggaggagtgg tgcagcccgg agggtcctg 120
aggctgtcct gcgccgctag cggcttcacc ttttccaact acggcatgca ctgggtgagg 180

SEQUENCE LISTING

caagcccctg gagagggcct ggaatgggtg gctgctatct ggttcgacgc cagcgacaag	240
tactatgccg acgctgtgaa gggccgggtt accatcagca gggacaacgc caagaacacc	300
ctctacctgc agatgaacag cctccggggc gaggacaccg ctgtctatta ctgtgccagg	360
gaccaggcca tcttcggagt ggtccccgat tactggggcc agggaaccct ggtgaccgtg	420
tcctccgctt ccacaaaggg acctagcgtg ttccctctgg cccctagcag caagtccaca	480
agcggaggaa cagccgccct gggctgtctc gtgaaggact attttcccga gcccgtagacc	540
gtgtcctgga actccggagc cctgacctcc ggcgtgcata cattccccgc tgtcctgcag	600
tccagcggcc tctactccct gtcctccgtg gtcaccgtgc ctagcagcag cctgggcacc	660
cagacataca tctgcaacgt caaccacaag cttccaaca ccaaggtgga caagaaggtg	720
gagcccaagt cctgtgacaa gaccacacc tgtcctccct gtcctgctcc tgagctgctg	780
ggaggcccct ccgtcttcct gttccctccc aagcccaagg acaccctgat gatctccagg	840
acccctgaag tgacatgtgt ggtggtggat gtgagccacg aagatcccga ggtgaagttc	900
aactggtacg tggacggcgt ggaggtgcac aacgctaaaa caaagccctg cgaggagcag	960
tacggatcca cctacaggtg cgtgtccgtg ctcaccgtgc tccatcagga ctggctgaac	1020
ggaaaagagt acaagtgcaa agtcagcaat aaggccctgc ccgcccctat cgagaaaacc	1080
atcagcaagg ccaaaggcca gcccaggag cctcaggtgt ataccctgcc tccctccagg	1140
gaggagatga ccaagaacca ggtgagcctg acctgcctcg tgaagggtt ttatccctcc	1200
gacatcgctg tggagtggga gagcaatggc cagcctgaaa acaactacaa aaccaccccc	1260
cctgtgctgg atagcgacgg cagcttcttc ctctactcca agctgaccgt cgataagtcc	1320
cggtggcagc agggcaacgt gtttagctgc agcgtgatgc acgaagccct gcataaccac	1380
tacaccaga agagcctgag ctcagcccc ggaaag	1416

<210> 164
 <211> 472
 <212> PRT
 <213> Homo sapiens

<400> 164

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp

SEQUENCE LISTING

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

SEQUENCE LISTING

210

215

220

Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val
225 230 235 240

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
245 250 255

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
260 265 270

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
275 280 285

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
290 295 300

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln
305 310 315 320

Tyr Gly Ser Thr Tyr Arg Cys Val Ser Val Leu Thr Val Leu His Gln
325 330 335

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
340 345 350

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
355 360 365

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
370 375 380

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
385 390 395 400

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
405 410 415

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr

SEQUENCE LISTING

420

425

430

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
435 440 445

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
450 455 460

Ser Leu Ser Leu Ser Pro Gly Lys
465 470

<210> 165
<211> 717
<212> DNA
<213> Homo sapiens

<400> 165
atgaggctcc ctgctcagct cctggggctg ctaatgctct gggtccctgg atccagtggg 60
gatattgtga tgaccagac tccactctcc tcacctgtca cccttgga gccggcctcc 120
atctcctgca ggtctagtca aagcctcgta cacagtgatg gaaacaccta cttgaattgg 180
cttcagcaga ggccaggcca gcctccaaga ctccctaattt ataagatttc taaccggttc 240
tctggggctcc cagacagatt cactggcagt ggggcaggga cagatttcac actgaaaatc 300
agcagggtgg aagctgagga tgtcgggggtt tatacctgca tgcaagttac acaatttcct 360
ctcaccttcg gccaaaggac acgactggag attaaacgaa ctgtggctgc accatctgtc 420
ttcatcttcc cgccatctga tgagcagttg aaatctggaa ctgcctctgt tgtgtgcctg 480
ctgaataact tctatcccag agaggccaaa gtacagtgga aggtggataa cgccctccaa 540
tcgggtaact cccaggagag tgtcacagag caggacagca aggacagcac ctacagcctc 600
agcagcacc tgacgctgag caaagcagac tacgagaaac acaaagtcta cgcctgcgaa 660
gtcacccatc agggcctgag ctcgcccgtc acaaagagct tcaacagggg agagtgt 717

<210> 166
<211> 239
<212> PRT
<213> Homo sapiens

<400> 166

SEQUENCE LISTING

Met Arg Leu Pro Ala Gln Leu Leu Gly Leu Leu Met Leu Trp Val Pro
1 5 10 15

Gly Ser Ser Gly Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro
20 25 30

Val Thr Leu Gly Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser
35 40 45

Leu Val His Ser Asp Gly Asn Thr Tyr Leu Asn Trp Leu Gln Gln Arg
50 55 60

Pro Gly Gln Pro Pro Arg Leu Leu Ile Tyr Lys Ile Ser Asn Arg Phe
65 70 75 80

Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ala Gly Thr Asp Phe
85 90 95

Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Thr
100 105 110

Cys Met Gln Val Thr Gln Phe Pro Leu Thr Phe Gly Gln Gly Thr Arg
115 120 125

Leu Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro
130 135 140

Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu
145 150 155 160

Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp
165 170 175

Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp
180 185 190

Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys
195 200 205

SEQUENCE LISTING

Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln
 210 215 220

Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 225 230 235

<210> 167
 <211> 1410
 <212> DNA
 <213> Homo sapiens

<400> 167
 atggacacac tttgctacac actcctgctg ctgaccaccc cttcctgggt cttgtcccag 60
 gtcaccttga aggagtctgg tcctgtgctg ctgaaaccca cagagaccct cacgctgacc 120
 tgcaccgtct ctgggttctc actcagcaat gctagaatgg gtgtgagctg gatccgtcag 180
 cccccaggga aggccctgga gtggcttgca cacatttttt cgaatgacga aaaatcctac 240
 atcacatctc tgaagagcag gtcaccatc tccaaggaca cctccaaaag ccaggtggtc 300
 cttaccatga ccaacatgga ccctgtggac acagccacat attactgtgc acggataccc 360
 ctacgatccc cgggtgcttt tgatatctgg ggccaaggga caatgggtcac cgtctcttca 420
 gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg 480
 ggacacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacggtgtcg 540
 tggaaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca 600
 ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg caccagacc 660
 tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagag agttgagccc 720
 aaatcttgtg acaaaaactca cacatgccc aagtgcccag cacctgaact cctgggggga 780
 ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggaccct 840
 gaggtcacat gcgtgggtgt ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg 900
 tacgtggacg gcgtggaggt gcataatgcc aagacaaaagc cgcgggagga gcagtacaac 960
 agcacgtacc gtgtgggtcag cgtcctcacc gtcctgcacc aggactggct gaatggcaag 1020
 gagtacaagt gcaaggtctc caacaaagcc ctcccagccc ccatcgagaa aaccatctcc 1080
 aaagccaaaag ggcagccccc agaaccacag gtgtacaccc tgcccccatc ccgggaggag 1140

SEQUENCE LISTING

```

atgaccaaga accaggtcag cctgacctgc ctggtcaaag gcttctatcc cagcgacatc      1200
gccgtggagt gggagagcaa tgggcagccg gagaacaact acaagaccac gcctcccgtg      1260
ctggactccg acggctcctt cttcctctat agcaagctca ccgtggacaa gagcaggtgg      1320
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg      1380
cagaagagcc tctcactgtc tccgggtaaa      1410

```

```

<210> 168
<211> 470
<212> PRT
<213> Homo sapiens

```

```

<400> 168

```

```

Met Asp Thr Leu Cys Tyr Thr Leu Leu Leu Leu Thr Thr Pro Ser Trp
1          5          10          15

```

```

Val Leu Ser Gln Val Thr Leu Lys Glu Ser Gly Pro Val Leu Leu Lys
          20          25          30

```

```

Pro Thr Glu Thr Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu
          35          40          45

```

```

Ser Asn Ala Arg Met Gly Val Ser Trp Ile Arg Gln Pro Pro Gly Lys
          50          55          60

```

```

Ala Leu Glu Trp Leu Ala His Ile Phe Ser Asn Asp Glu Lys Ser Tyr
65          70          75          80

```

```

Ile Thr Ser Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys
          85          90          95

```

```

Ser Gln Val Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala
          100          105          110

```

```

Thr Tyr Tyr Cys Ala Arg Ile Pro Leu Arg Ser Pro Gly Ala Phe Asp
          115          120          125

```

```

Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys

```

SEQUENCE LISTING

130

135

140

Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly
145 150 155 160

Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro
165 170 175

Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr
180 185 190

Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val
195 200 205

Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn
210 215 220

Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Pro
225 230 235 240

Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu
245 250 255

Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
260 265 270

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
275 280 285

Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly
290 295 300

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn
305 310 315 320

Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp
325 330 335

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro

SEQUENCE LISTING

340

345

350

Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu
355 360 365

Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn
370 375 380

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
385 390 395 400

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
405 410 415

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
420 425 430

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
435 440 445

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
450 455 460

Ser Leu Ser Pro Gly Lys
465 470

<210> 169
<211> 705
<212> DNA
<213> Homo sapiens

<400> 169
atggaaaccc cagcgcagct tctcttcctc ctgctactct ggctcccaga taccaccgga 60
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 120
ctctcctgta gggccagtca gagtgttcgc ggcagggtact tagcctggta ccagcagaaa 180
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 240
gacaggttca gtggcagtggt gtctgggaca gacttcactc tcaccatcag cagactggag 300
cctgaagatt ttgcagtgtt ttactgtcag cagtatggta gttcacctcg gacgttcggc 360

SEQUENCE LISTING

```

caagggacca aggtggaaat caaacgaact gtggctgcac catctgtctt catcttcccg      420
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc      480
tatcccagag aggccaaagt acagtggaag gtggataacg ccctccaatc gggtaactcc      540
caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg      600
acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt cacccatcag      660
ggcctgagct cgcccgtcac aaagagcttc aacaggggag agtgt                          705

```

```

<210> 170
<211> 235
<212> PRT
<213> Homo sapiens

```

```

<400> 170

```

```

Met Glu Thr Pro Ala Gln Leu Leu Phe Leu Leu Leu Leu Trp Leu Pro
1          5          10          15

```

```

Asp Thr Thr Gly Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser
          20          25          30

```

```

Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser
          35          40          45

```

```

Val Arg Gly Arg Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala
          50          55          60

```

```

Pro Arg Leu Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro
65          70          75          80

```

```

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
          85          90          95

```

```

Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Phe Tyr Cys Gln Gln Tyr
          100          105          110

```

```

Gly Ser Ser Pro Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
          115          120          125

```

SEQUENCE LISTING

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
130 135 140

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
145 150 155 160

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
165 170 175

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
180 185 190

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
195 200 205

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
210 215 220

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 171
<211> 1401
<212> DNA
<213> Homo sapiens

<400> 171
atggagtttg ggctgagctg gcttttttctt gtggctatatt taaaaggtgt ccagtgtgag 60
gtgcagctgt tggagtctgg gggaggcttg gtacagcctg ggggggtccct gagactctcc 120
tgtgcagcct ctggattcac ctttagcagc tatgccatga gctgggtccg ccaggctcca 180
gggaaggggc tggagtgggt ctcaggtatt actgggagtg gtggtagtac atactacgca 240
gactccgtga agggccggtt caccatctcc agagacaatt ccaagaacac gctgtatctg 300
caaatgaaca gcctgagagc cgaggacacg gccgtatatt actgtgcgaa agatccaggg 360
actacggtga ttatgagttg gttcgacccc tggggccagg gaaccctggt caccgtctcc 420
tcagcctcca ccaagggcc atcggtcttc cccctggcgc cctgctccag gagcacctcc 480
gagagcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacggtg 540

SEQUENCE LISTING

```

tcgtggaact caggcgctct gaccagcggc gtgcacacct tcccagctgt cctacagtcc      600
tcaggactct actccctcag cagcgtggtg accgtgccct ccagcaactt cggcaccacg      660
acctacacct gcaacgtaga tcacaagccc agcaacacca aggtggacaa gacagttgag      720
cgcaaatgtt gtgtcgagtg cccaccgtgc ccagcaccac ctgtggcagg accgtcagtc      780
ttcctcttcc ccccaaaacc caaggacacc ctcatgatct cccggacccc tgaggtcacg      840
tgcgtggtgg tggacgtgag ccacgaagac cccgaggtcc agttcaactg gtacgtggac      900
ggcgtggagg tgcataatgc caagacaaag ccacgggagg agcagttcaa cagcacgttc      960
cgtgtggtca gcgtcctcac cgttgtgcac caggactggc tgaacggcaa ggagtacaag     1020
tgcaaggtct ccaacaaagg cctcccagcc cccatcgaga aaaccatctc caaaacaaaa     1080
gggcagcccc gagaaccaca ggtgtacacc ctgcccccat cccgggagga gatgaccaag     1140
aaccagggtc gcctgacctg cctggtcaaa ggcttctacc ccagcgacat cgccgtggag     1200
tgggagagca atgggcagcc ggagaacaac tacaagacca cacctcccat gctggactcc     1260
gacggctcct tcttcctcta cagcaagctc accgtggaca agagcaggtg gcagcagggg     1320
aacgtcttct catgctccgt gatgcatgag gctctgcaca accactacac gcagaagagc     1380
ctctccctgt ctccgggtaa a                                             1401

```

<210> 172
 <211> 467
 <212> PRT
 <213> Homo sapiens

<400> 172

```

Met Glu Phe Gly Leu Ser Trp Leu Phe Leu Val Ala Ile Leu Lys Gly
1           5           10           15

```

```

Val Gln Cys Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln
20           25           30

```

```

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35           40           45

```

```

Ser Ser Tyr Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu

```

SEQUENCE LISTING

50

55

60

Glu Trp Val Ser Gly Ile Thr Gly Ser Gly Gly Ser Thr Tyr Tyr Ala
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
85 90 95

Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Lys Asp Pro Gly Thr Thr Val Ile Met Ser Trp Phe
115 120 125

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

Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser
145 150 155 160

Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
165 170 175

Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
180 185 190

Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
195 200 205

Val Val Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys
210 215 220

Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu
225 230 235 240

Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala
245 250 255

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met

SEQUENCE LISTING

260

265

270

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
275 280 285

Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val
290 295 300

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe
305 310 315 320

Arg Val Val Ser Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly
325 330 335

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile
340 345 350

Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val
355 360 365

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
370 375 380

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
385 390 395 400

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
405 410 415

Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
420 425 430

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
435 440 445

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
450 455 460

Pro Gly Lys

SEQUENCE LISTING

465

<210> 173
<211> 714
<212> DNA
<213> Homo sapiens

<400> 173
atggtgttgc agaccaggt cttcatttct ctgttgctct ggatctctgg tgcctacggg 60
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 120
atcaactgca gagccagtga aagtgttgat atttatggca atagttttat gcactggtac 180
cagcagaaac caggacagcc tcctaagctg ctcatctacc ttgcatccaa cctagaatct 240
ggggtccctg accgattcag tggcagcggg tctgggacag atttcactct caccatcagc 300
agcctgcagg ctgaagatgt ggcagtttat tactgtcagc aaaataatga ggatccgtac 360
acgttcggag gtgggaccaa ggtggaaata aaacgtacgg tggctgcacc atctgtcttc 420
atcttcccg ccatctgatga gcagttgaaa tctggaactg cctctgttgt gtgcctgctg 480
aataacttct atcccagaga ggccaaagta cagtggaagg tggataacgc cctccaatcg 540
ggtaactccc aggagagtgt cacagagcag gacagcaagg acagcaccta cagcctcagc 600
agcaccctga cgctgagcaa agcagactac gagaaacaca aagtctacgc ctgcgaagtc 660
acccatcagg gcctgagctc gcccgtcaca aagagcttca acaggggaga gtgt 714

<210> 174
<211> 238
<212> PRT
<213> Homo sapiens

<400> 174
Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
1 5 10 15
Gly Ala Tyr Gly Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala
20 25 30
Val Ser Leu Gly Glu Arg Ala Thr Ile Asn Cys Arg Ala Ser Glu Ser
35 40 45

SEQUENCE LISTING

Val Asp Ile Tyr Gly Asn Ser Phe Met His Trp Tyr Gln Gln Lys Pro
50 55 60

Gly Gln Pro Pro Lys Leu Leu Ile Tyr Leu Ala Ser Asn Leu Glu Ser
65 70 75 80

Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
85 90 95

Leu Thr Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys
100 105 110

Gln Gln Asn Asn Glu Asp Pro Tyr Thr Phe Gly Gly Gly Thr Lys Val
115 120 125

Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
130 135 140

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

Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
165 170 175

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser
180 185 190

Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala
195 200 205

Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly
210 215 220

Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 175
<211> 1398
<212> DNA

SEQUENCE LISTING

<213> Homo sapiens

<400> 175

atggactgga cctggagggt cttctgcttg ctggcagtgg ccccaggtgc ccactcccag	60
gtgcagctgg tgcagtctgg ggctgaggtg aagaagcctg gggcctcagt gaaggtctcc	120
tgcaaggctt ctggatacac cttcaccagt tacaatatgc actgggtgcg ccaggcccct	180
ggacaagggc ttgagtggat gggagttatt tattcaggaa atggtgatac ttcctacaat	240
cagaagttca aaggcagggt caccattacc gctgacaaat ccaccagcac agcctacatg	300
gagctgagca gcctgagatc tgaggacacg gccgtgtatt actgtgcgag agagagggat	360
actcgttttg gtaactgggg ccaagggact ctggtcaccg tctctagtgc ctccaccaag	420
ggcccatcgg tcttccccct ggcaccctcc tccaagagca cctctggggg cacagcggcc	480
ctgggctgcc tgggtcaagga ctacttcccc gaaccggtga cgggtgctgtg gaactcaggc	540
gccctgacca gcggcgtgca caccttcccc gctgtcctac agtcctcagg actctactcc	600
ctcagcagcg tggtgaccgt gccctccagc agcttgggca ccagaccta catctgcaac	660
gtgaatcaca agcccagcaa caccaagggtg gacaagaaag ttgagcccaa atcttgtgac	720
aaaactcaca catgcccacc gtgcccagca cctgaactcc tgggggggacc gtcagtcttc	780
ctcttcccc caaaaccaa ggacaccctc atgatctccc ggaccctga ggtcacatgc	840
gtggtggtgg acgtgagcca cgaagaccct gaggtcaagt tcaactggta cgtggacggc	900
gtggagggtgc ataatgcaa gacaaagccg cgggaggagc agtaccagag cacgtaccgt	960
gtggtcagcg tcctcaccgt cctgcaccag gactggctga atggcaagga gtacaagtgc	1020
aaggtctcca acaaagccct ccagccccc atcgagaaaa ccatctcaa agccaaaggg	1080
cagccccgag aaccacaggt gtacaccctg ccccatccc gggatgagct gaccaagaac	1140
caggtcagcc tgacctgcct ggtcaaaggc ttctatccca gcgacatcgc cgtggagtgg	1200
gagagcaatg ggcagccgga gaacaactac aagaccacgc ctcccgtgct ggactccgac	1260
ggctccttct tcctctatag caagctcacc gtggacaaga gcagggtggca gcaggggaac	1320
gtcttctcat gctccgtgat gcatgaggct ctgcacaacc actacacgca gaagagcctc	1380
tccctgtctc cgggtaaa	1398

SEQUENCE LISTING

<210> 176
 <211> 466
 <212> PRT
 <213> Homo sapiens

<400> 176

Met Asp Trp Thr Trp Arg Val Phe Cys Leu Leu Ala Val Ala Pro Gly
 1 5 10 15

Ala His Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
 20 25 30

Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
 35 40 45

Thr Ser Tyr Asn Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
 50 55 60

Glu Trp Met Gly Val Ile Tyr Ser Gly Asn Gly Asp Thr Ser Tyr Asn
 65 70 75 80

Gln Lys Phe Lys Gly Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser
 85 90 95

Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val
 100 105 110

Tyr Tyr Cys Ala Arg Glu Arg Asp Thr Arg Phe Gly Asn Trp Gly Gln
 115 120 125

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

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 145 150 155 160

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 165 170 175

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val

SEQUENCE LISTING

180

185

190

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
195 200 205

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
210 215 220

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
225 230 235 240

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
245 250 255

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
260 265 270

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
275 280 285

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
290 295 300

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Gln Ser Thr Tyr Arg
305 310 315 320

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
325 330 335

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
340 345 350

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
355 360 365

Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
370 375 380

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp

SEQUENCE LISTING

385 390 395 400

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
405 410 415

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
420 425 430

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
435 440 445

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
450 455 460

Gly Lys
465

<210> 177
<211> 705
<212> DNA
<213> Homo sapiens

<400> 177
atggcctggg ctctgctgct cctcactctc ctactcagg acacagggtc ctgggccag 60
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tgttctggaa gcagctccaa catcggcagt aattatgtat actggtacca gcagctccca 180
ggagcggccc ccaaactcct catccttagg aataatcagc ggccctcagg ggtccctgac 240
cgattctctg gtcceaagtc tggcacctca gcctccctga ccatcagtgg gctccggtcc 300
gaggatgagg ctgactatta ttgtgcagca tgggatgaca gcctgagtgg ttgggtgttc 360
ggcggaggga ccaagctgac cgtcctaggt cagcccaagg ccaacccac tgtcactctg 420
ttcccgccct cctctgagga gtcceaagcc aacaaggcca cactagtgtg tctgatcagt 480
gacttctacc cgggagctgt gacagtggcc tggaaggcag atggcagccc cgtcaaggcg 540
ggagtggaga ccaccaaacc ctccaaacag agcaacaaca agtacgcggc cagcagctac 600
ctgagcctga cgcccagca gtggaagtcc cacagaagct acagctgcca ggtcacgcat 660
gaaggagca ccgtggagaa gacagtggcc cctacagaat gttca 705

SEQUENCE LISTING

<210> 178
 <211> 235
 <212> PRT
 <213> Homo sapiens

<400> 178

Met Ala Trp Ala Leu Leu Leu Thr Leu Leu Thr Gln Asp Thr Gly
 1 5 10 15

Ser Trp Ala Gln Ser Val Leu Thr Gln Ser Pro Ser Ala Ser Gly Thr
 20 25 30

Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile
 35 40 45

Gly Ser Asn Tyr Val Tyr Trp Tyr Gln Gln Leu Pro Gly Ala Ala Pro
 50 55 60

Lys Leu Leu Ile Leu Arg Asn Asn Gln Arg Pro Ser Gly Val Pro Asp
 65 70 75 80

Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Thr Ile Ser
 85 90 95

Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp
 100 105 110

Asp Ser Leu Ser Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val
 115 120 125

Leu Gly Gln Pro Lys Ala Asn Pro Thr Val Thr Leu Phe Pro Pro Ser
 130 135 140

Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser
 145 150 155 160

Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Gly Ser
 165 170 175

SEQUENCE LISTING

Pro Val Lys Ala Gly Val Glu Thr Thr Lys Pro Ser Lys Gln Ser Asn
180 185 190

Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp
195 200 205

Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr
210 215 220

Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
225 230 235

<210> 179
<211> 1437
<212> DNA
<213> Homo sapiens

<400> 179
atggacatga ggggtgcccgc tcagctcctg gggctcctgc tgctgtggct gagaggtgcg 60
cgctgtgagg tgcagctggt ggagtctggg ggaggcttgg taaagcctgg ggggtccctt 120
agactctcct gtgcagcctc tggattcact ttcagtaacg cctggatgag ctgggtccgc 180
caggctccag ggaaggggct ggagtgggtt ggccgtatta aaagcaaaac tgatgggtggg 240
acaacagact acactgcacc cgtgaaaggc agattcacca tctcaagaga tgattcaaaa 300
aacacgctgt atctgcaa atgaatagcctg aaagccgagg acacagccgt gtattactgt 360
accacagatc ggaccgggta tagcatcagc tgggtctagtt actactacta ctacggtatg 420
gacgtctggg gccaaaggac cacggtcacc gtctctagt cctccaccaa gggcccatcg 480
gtcttcccc tggcgccctg ctccaggagc acctccgaga gcacagcggc cctgggctgc 540
ctgggtcaagg actacttccc cgaaccggtg acgggtgtcgt ggaactcagg cgctctgacc 600
agcggcgtgc acaccttccc agctgtccta cagtcctcag gactctactc cctcagcagc 660
gtgggtgaccg tgccctccag caacttcggc acccagacct acacctgcaa cgtagatcac 720
aagcccagca acaccaaggt ggacaagaca gttgagcgca aatgttgtgt cgagtgccca 780
ccgtgcccag caccacctgt ggcaggaccg tcagtcttcc tcttcccccc aaaacccaag 840
gacaccctca tgatctcccg gaccctgag gtcacgtgcg tgggtggtgga cgtgagccac 900

SEQUENCE LISTING

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gaagaccccg aggtccagtt caactggtac gtggacggcg tggaggtgca taatgccaag      960
acaaagccac gggaggagca gttcaacagc acgttccgtg tggtcagcgt cctcaccgtt      1020
gtgcaccagg actggctgaa cggcaaggag tacaagtgca aggtctccaa caaaggcctc      1080
ccagccccca tcgagaaaac catctccaaa accaaagggc agccccgaga accacaggtg      1140
tacaccctgc ccccatcccg ggaggagatg accaagaacc aggtcagcct gacctgcctg      1200
gtcaaaggct tctaccccag cgacatcgcc gtggagtggg agagcaatgg gcagccggag      1260
aacaactaca agaccacacc tcccatgctg gactccgacg gctccttctt cctctacagc      1320
aagctcaccg tggacaagag caggtggcag caggggaacg tcttctcatg ctccgtgatg      1380
catgaggctc tgcacaacca ctacacgcag aagagcctct ccctgtctcc gggtaaa      1437

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<210> 180
<211> 479
<212> PRT
<213> Homo sapiens

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<400> 180

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Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1           5           10          15

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Leu Arg Gly Ala Arg Cys Glu Val Gln Leu Val Glu Ser Gly Gly Gly
20          25          30

```

```

Leu Val Lys Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
35          40          45

```

```

Phe Thr Phe Ser Asn Ala Trp Met Ser Trp Val Arg Gln Ala Pro Gly
50          55          60

```

```

Lys Gly Leu Glu Trp Val Gly Arg Ile Lys Ser Lys Thr Asp Gly Gly
65          70          75          80

```

```

Thr Thr Asp Tyr Thr Ala Pro Val Lys Gly Arg Phe Thr Ile Ser Arg
85          90          95

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Asp Asp Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Ala

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SEQUENCE LISTING

100

105

110

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Thr Asp Arg Thr Gly Tyr Ser
115 120 125

Ile Ser Trp Ser Ser Tyr Tyr Tyr Tyr Tyr Gly Met Asp Val Trp Gly
130 135 140

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

Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala
165 170 175

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
180 185 190

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
195 200 205

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
210 215 220

Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His
225 230 235 240

Lys Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys
245 250 255

Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val
260 265 270

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
275 280 285

Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
290 295 300

Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys

SEQUENCE LISTING

305 310 315 320

Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser
325 330 335

Val Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
340 345 350

Cys Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile
355 360 365

Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
370 375 380

Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
385 390 395 400

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
405 410 415

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser
420 425 430

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
435 440 445

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
450 455 460

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
465 470 475

<210> 181
<211> 23
<212> PRT
<213> Homo sapiens

<400> 181

Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15

SEQUENCE LISTING

Glu Arg Ala Thr Leu Ser Cys
20

<210> 182
<211> 15
<212> PRT
<213> Homo sapiens

<400> 182

Trp Tyr Arg Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile Tyr
1 5 10 15

<210> 183
<211> 32
<212> PRT
<213> Homo sapiens

<400> 183

Gly Ile Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr
1 5 10 15

Leu Thr Ile Ser Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys
20 25 30

<210> 184
<211> 10
<212> PRT
<213> Homo sapiens

<400> 184

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
1 5 10

<210> 185
<211> 23
<212> PRT
<213> Homo sapiens

<400> 185

Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
1 5 10 15

SEQUENCE LISTING

Glu Lys Val Thr Ile Thr Cys
20

<210> 186
<211> 15
<212> PRT
<213> Homo sapiens

<400> 186

Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile Lys
1 5 10 15

<210> 187
<211> 32
<212> PRT
<213> Homo sapiens

<400> 187

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15

Leu Thr Ile Asn Ser Leu Glu Ala Glu Asp Ala Ala Ala Tyr Tyr Cys
20 25 30

<210> 188
<211> 10
<212> PRT
<213> Homo sapiens

<400> 188

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
1 5 10

<210> 189
<211> 23
<212> PRT
<213> Homo sapiens

<400> 189

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

SEQUENCE LISTING

Gln Pro Ala Ser Ile Ser Cys
20

<210> 190
<211> 15
<212> PRT
<213> Homo sapiens

<400> 190

Trp Leu Gln Gln Arg Pro Gly Gln Pro Pro Arg Leu Leu Ile Tyr
1 5 10 15

<210> 191
<211> 32
<212> PRT
<213> Homo sapiens

<400> 191

Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ala Gly Thr Asp Phe Thr
1 5 10 15

Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Thr Cys
20 25 30

<210> 192
<211> 10
<212> PRT
<213> Homo sapiens

<400> 192

Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
1 5 10

<210> 193
<211> 23
<212> PRT
<213> Homo sapiens

<400> 193

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

SEQUENCE LISTING

Glu Arg Ala Thr Leu Ser Cys
20

<210> 194
<211> 15
<212> PRT
<213> Homo sapiens

<400> 194

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile Tyr
1 5 10 15

<210> 195
<211> 32
<212> PRT
<213> Homo sapiens

<400> 195

Gly Ile Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15

Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Phe Tyr Cys
20 25 30

<210> 196
<211> 10
<212> PRT
<213> Homo sapiens

<400> 196

Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
1 5 10

<210> 197
<211> 23
<212> PRT
<213> Homo sapiens

<400> 197

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

SEQUENCE LISTING

Asp Arg Ala Thr Leu Ser Cys
20

<210> 198
<211> 32
<212> PRT
<213> Homo sapiens

<400> 198

Gly Ile Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15

Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys
20 25 30

<210> 199
<211> 15
<212> PRT
<213> Homo sapiens

<400> 199

Trp His Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile Tyr
1 5 10 15

<210> 200
<211> 15
<212> PRT
<213> Homo sapiens

<400> 200

Trp His Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile Tyr
1 5 10 15

<210> 201
<211> 32
<212> PRT
<213> Homo sapiens

<400> 201

Gly Ile Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15

SEQUENCE LISTING

Leu Thr Val Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys
 20 25 30

<210> 202
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 202

Trp Phe Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile Tyr
 1 5 10 15

<210> 203
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 203

Gly Ile Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1 5 10 15

Phe Thr Ile Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys
 20 25 30

<210> 204
 <211> 10
 <212> PRT
 <213> Homo sapiens

<400> 204

Phe Gly Gln Gly Thr Thr Val Glu Ile Lys
 1 5 10

<210> 205
 <211> 23
 <212> PRT
 <213> Homo sapiens

<400> 205

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

SEQUENCE LISTING

Asp Arg Val Thr Ile Thr Cys
20

<210> 206
<211> 15
<212> PRT
<213> Homo sapiens

<400> 206

Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr
1 5 10 15

<210> 207
<211> 32
<212> PRT
<213> Homo sapiens

<400> 207

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15

Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys
20 25 30

<210> 208
<211> 23
<212> PRT
<213> Homo sapiens

<400> 208

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

Asp Arg Val Thr Ile Thr Cys
20

<210> 209
<211> 32
<212> PRT
<213> Homo sapiens

SEQUENCE LISTING

<400> 209

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15

Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Asn Tyr Tyr Cys
20 25 30

<210> 210

<211> 23

<212> PRT

<213> Homo sapiens

<400> 210

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

Glu Arg Ala Thr Ile Asn Cys
20

<210> 211

<211> 15

<212> PRT

<213> Homo sapiens

<400> 211

Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile Tyr
1 5 10 15

<210> 212

<211> 32

<212> PRT

<213> Homo sapiens

<400> 212

Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15

Leu Thr Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys
20 25 30

<210> 213

SEQUENCE LISTING

<211> 32
 <212> PRT
 <213> Homo sapiens

<400> 213

Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr
 1 5 10 15

Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys
 20 25 30

<210> 214
 <211> 10
 <212> PRT
 <213> Homo sapiens

<400> 214

Phe Gly Pro Gly Thr Lys Val Asp Ile Lys
 1 5 10

<210> 215
 <211> 23
 <212> PRT
 <213> Homo sapiens

<400> 215

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

Glu Arg Ala Thr Ile Asn Cys
 20

<210> 216
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 216

Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1 5 10 15

Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Val Ala Val Tyr Tyr Cys

SEQUENCE LISTING

20

25

30

<210> 217
<211> 10
<212> PRT
<213> Homo sapiens

<400> 217

Phe Gly Gln Gly Thr Arg Val Glu Ile Lys
1 5 10

<210> 218
<211> 23
<212> PRT
<213> Homo sapiens

<400> 218

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

Asp Arg Val Thr Met Ser Cys
20

<210> 219
<211> 32
<212> PRT
<213> Homo sapiens

<400> 219

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15

Phe Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala Thr Tyr Tyr Cys
20 25 30

<210> 220
<211> 10
<212> PRT
<213> Homo sapiens

<400> 220

Phe Gly Gly Gly Thr Lys Val Gln Ile Lys

SEQUENCE LISTING

1 5 10

<210> 221
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 221

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1 5 10 15

Phe Thr Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala Thr Tyr Phe Cys
 20 25 30

<210> 222
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 222

Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile Tyr
 1 5 10 15

<210> 223
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 223

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr
 1 5 10 15

Leu Thr Ile Ser Ser Val Gln Pro Glu Asp Phe Val Thr Tyr Tyr Cys
 20 25 30

<210> 224
 <211> 23
 <212> PRT
 <213> Homo sapiens

<400> 224

Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly

SEQUENCE LISTING

1 5 10 15

Glu Pro Ala Ser Ile Ser Cys
20

<210> 225
<211> 15
<212> PRT
<213> Homo sapiens

<400> 225

Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr
1 5 10 15

<210> 226
<211> 32
<212> PRT
<213> Homo sapiens

<400> 226

Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15

Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys
20 25 30

<210> 227
<211> 23
<212> PRT
<213> Homo sapiens

<400> 227

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

Glu Pro Ala Ser Ile Ser Cys
20

<210> 228
<211> 32
<212> PRT
<213> Homo sapiens

SEQUENCE LISTING

<400> 228

Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr His Leu Thr
1 5 10 15

Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys
20 25 30

<210> 229

<211> 15

<212> PRT

<213> Homo sapiens

<400> 229

Trp Tyr Gln Gln Lys Pro Glu Lys Ala Pro Lys Ser Leu Ile Tyr
1 5 10 15

<210> 230

<211> 10

<212> PRT

<213> Homo sapiens

<400> 230

Phe Gly Gln Gly Thr Lys Leu Glu Ile Ser
1 5 10

<210> 231

<211> 10

<212> PRT

<213> Homo sapiens

<400> 231

Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
1 5 10

<210> 232

<211> 15

<212> PRT

<213> Homo sapiens

<400> 232

Trp Phe Gln Gln Lys Pro Gly Gln Ala Pro Arg Pro Leu Ile Tyr

SEQUENCE LISTING

1 5 10 15

<210> 233
<211> 32
<212> PRT
<213> Homo sapiens

<400> 233

Gly Val Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15

Leu Thr Ile Ser Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys
20 25 30

<210> 234
<211> 32
<212> PRT
<213> Homo sapiens

<400> 234

Gly Ile Pro Ala Arg Val Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr
1 5 10 15

Leu Thr Ile Ser Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys
20 25 30

<210> 235
<211> 23
<212> PRT
<213> Homo sapiens

<400> 235

Asp Val Leu Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys
20

<210> 236
<211> 15
<212> PRT
<213> Homo sapiens

SEQUENCE LISTING

<400> 236

Trp Tyr Leu Gln Arg Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr
1 5 10 15

<210> 237

<211> 10

<212> PRT

<213> Homo sapiens

<400> 237

Phe Gly Ala Gly Thr Lys Leu Glu Ile Lys
1 5 10

<210> 238

<211> 23

<212> PRT

<213> Homo sapiens

<400> 238

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

Glu Arg Ala Thr Leu Ser Cys
20

<210> 239

<211> 32

<212> PRT

<213> Homo sapiens

<400> 239

Gly Ile Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15

Leu Thr Ile Ser Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys
20 25 30

<210> 240

<211> 23

<212> PRT

<213> Homo sapiens

SEQUENCE LISTING

<400> 240

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

Gln Pro Ala Ser Ile Ser Cys
20

<210> 241

<211> 15

<212> PRT

<213> Homo sapiens

<400> 241

Trp Tyr Leu Gln Lys Pro Gly Gln Pro Pro Gln Phe Leu Ile Tyr
1 5 10 15

<210> 242

<211> 32

<212> PRT

<213> Homo sapiens

<400> 242

Arg Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15

Leu Arg Ile Ser Arg Val Glu Ala Glu Asp Val Gly Ile Tyr Tyr Cys
20 25 30

<210> 243

<211> 10

<212> PRT

<213> Homo sapiens

<400> 243

Phe Gly Gln Gly Thr Gln Val Glu Ile Lys
1 5 10

<210> 244

<211> 32

<212> PRT

<213> Homo sapiens

SEQUENCE LISTING

<400> 244

Gly Ile Pro Asp Arg Val Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr
1 5 10 15

Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys
20 25 30

<210> 245

<211> 15

<212> PRT

<213> Homo sapiens

<400> 245

Trp Tyr Gln Gln Lys Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr
1 5 10 15

<210> 246

<211> 23

<212> PRT

<213> Homo sapiens

<400> 246

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

Glu Pro Ala Ser Ile Ser Cys
20

<210> 247

<211> 22

<212> PRT

<213> Homo sapiens

<400> 247

Glu 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
20

SEQUENCE LISTING

<210> 248
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 248

Trp	Tyr	Gln	Gln	His	Pro	Gly	Lys	Ala	Pro	Lys	Leu	Met	Ile	Tyr
1				5					10					15

<210> 249
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 249

Gly	Val	Ser	Asn	Arg	Phe	Ser	Gly	Ser	Lys	Ser	Gly	Asn	Thr	Ala	Ser
1				5					10						15

Leu	Thr	Ile	Ser	Gly	Leu	Gln	Ala	Glu	Asp	Glu	Ala	Asp	Tyr	Tyr	Cys
			20					25					30		

<210> 250
 <211> 10
 <212> PRT
 <213> Homo sapiens

<400> 250

Phe	Gly	Gly	Gly	Thr	Lys	Leu	Thr	Val	Leu
1				5					10

<210> 251
 <211> 22
 <212> PRT
 <213> Homo sapiens

<400> 251

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

Thr	Ala	Arg	Ile	Thr	Cys
			20		

SEQUENCE LISTING

<210> 252
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 252

Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln	Ala	Pro	Val	Leu	Val	Val	Tyr
1				5					10					15

<210> 253
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 253

Trp	Ile	Pro	Glu	Arg	Phe	Ser	Gly	Ser	Asn	Ser	Gly	Asn	Thr	Ala	Thr
1				5					10					15	

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

<210> 254
 <211> 22
 <212> PRT
 <213> Homo sapiens

<400> 254

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

Lys	Val	Thr	Ile	Ser	Cys
			20		

<210> 255
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 255

Trp	Tyr	Gln	Gln	Leu	Pro	Gly	Thr	Ala	Pro	Lys	Leu	Leu	Ile	Tyr
1				5					10					15

SEQUENCE LISTING

<210> 256
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 256

Gly Ile Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Thr Thr
 1 5 10 15

Leu Gly Ile Thr Gly Leu Gln Thr Gly Asp Glu Ala Asp Tyr Tyr Cys
 20 25 30

<210> 257
 <211> 22
 <212> PRT
 <213> Homo sapiens

<400> 257

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

Arg Val Thr Ile Ser Cys
 20

<210> 258
 <211> 15
 <212> PRT
 <213> Homo sapiens

<400> 258

Trp Tyr Gln Gln Leu Pro Gly Ala Ala Pro Lys Leu Leu Ile Leu
 1 5 10 15

<210> 259
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 259

Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser
 1 5 10 15

SEQUENCE LISTING

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

<210> 260
<211> 22
<212> PRT
<213> Homo sapiens

<400> 260

Ser Tyr Glu Val Thr Gln Ala Pro Ser Val Ser Val Ser Pro Gly Gln
1 5 10 15

Thr Ala Ser Ile Thr Cys
20

<210> 261
<211> 15
<212> PRT
<213> Homo sapiens

<400> 261

Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Val Leu Val Ile Tyr
1 5 10 15

<210> 262
<211> 32
<212> PRT
<213> Homo sapiens

<400> 262

Gly Ile Pro Glu Arg Phe Ser Gly Ser Asn Ser Gly Asn Thr Ala Thr
1 5 10 15

Leu Thr Ile Ser Gly Thr Gln Ala Met Asp Glu Ala Asp Tyr Tyr Cys
20 25 30

<210> 263
<211> 22
<212> PRT
<213> Homo sapiens

<400> 263

SEQUENCE LISTING

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

Thr Ala Thr Ile Thr Cys
20

<210> 264
<211> 15
<212> PRT
<213> Homo sapiens

<400> 264

Trp Tyr Gln Gln Arg Pro Gly Gln Ser Pro Val Leu Val Ile Tyr
1 5 10 15

<210> 265
<211> 32
<212> PRT
<213> Homo sapiens

<400> 265

Gly Ile Pro Glu Arg Phe Ser Gly Ser Asn Ser Gly Asn Thr Ala Thr
1 5 10 15

Leu Thr Ile Ser Gly Thr Gln Ala Met Asp Glu Ala Asp Tyr Phe Cys
20 25 30

<210> 266
<211> 22
<212> PRT
<213> Homo sapiens

<400> 266

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

Thr Val Lys Ile Thr Cys
20

<210> 267
<211> 15
<212> PRT

SEQUENCE LISTING

<213> Homo sapiens

<400> 267

Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Phe Tyr
1 5 10 15

<210> 268

<211> 32

<212> PRT

<213> Homo sapiens

<400> 268

Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser
1 5 10 15

Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys
20 25 30

<210> 269

<211> 10

<212> PRT

<213> Homo sapiens

<400> 269

Leu Gly Gly Gly Thr Lys Leu Thr Val Leu
1 5 10

<210> 270

<211> 22

<212> PRT

<213> Homo sapiens

<400> 270

Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys
1 5 10 15

Thr Val Ala Ile Ser Cys
20

<210> 271

<211> 15

<212> PRT

SEQUENCE LISTING

<213> Homo sapiens

<400> 271

Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val Ile Phe
1 5 10 15

<210> 272

<211> 34

<212> PRT

<213> Homo sapiens

<400> 272

Gly Val Pro Asp Arg Phe Ser Gly Ser Ile Asp Ser Ser Ser Asn Ser
1 5 10 15

Ala Ser Leu Thr Ile Ser Gly Leu Lys Thr Glu Asp Glu Ala Asp Tyr
20 25 30

Tyr Cys

<210> 273

<211> 30

<212> PRT

<213> Homo sapiens

<400> 273

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser
20 25 30

<210> 274

<211> 14

<212> PRT

<213> Homo sapiens

<400> 274

Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile Gly
1 5 10

SEQUENCE LISTING

<210> 275
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 275

Arg	Val	Thr	Ile	Ser	Val	Asp	Thr	Ser	Lys	Asn	Gln	Phe	Ser	Leu	Lys
1				5					10					15	

Leu	Asn	Ser	Val	Thr	Ala	Ala	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg
			20					25					30		

<210> 276
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 276

Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser
1				5					10	

<210> 277
 <211> 30
 <212> PRT
 <213> Homo sapiens

<400> 277

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

Ser	Leu	Lys	Ile	Ser	Cys	Lys	Gly	Ser	Gly	Tyr	Ser	Phe	Ser
			20					25					30

<210> 278
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 278

Trp	Val	Arg	Gln	Met	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Met	Gly
1				5					10				

SEQUENCE LISTING

<210> 279
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 279

Gln Val Thr Ile Ser Ala Asp Asn Ser Asn Ser Ala Thr Tyr Leu Gln
 1 5 10 15

Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Phe Cys Ala Arg
 20 25 30

<210> 280
 <211> 30
 <212> PRT
 <213> Homo sapiens

<400> 280

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

Thr Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser
 20 25 30

<210> 281
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 281

Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu Trp Leu Ala
 1 5 10

<210> 282
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 282

Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Ser Gln Val Val Leu Thr
 1 5 10 15

SEQUENCE LISTING

Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr Cys Ala Arg
 20 25 30

<210> 283
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 283

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
 1 5 10

<210> 284
 <211> 30
 <212> PRT
 <213> Homo sapiens

<400> 284

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 Lys Ala Ser Gly Tyr Thr Leu Thr
 20 25 30

<210> 285
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 285

Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly
 1 5 10

<210> 286
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 286

Arg Gly Thr Met Thr Thr Asp Pro Ser Thr Ser Thr Ala Tyr Met Glu
 1 5 10 15

SEQUENCE LISTING

Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys Ala Arg
20 25 30

<210> 287
<211> 11
<212> PRT
<213> Homo sapiens

<400> 287

Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
1 5 10

<210> 288
<211> 30
<212> PRT
<213> Homo sapiens

<400> 288

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 Arg
20 25 30

<210> 289
<211> 14
<212> PRT
<213> Homo sapiens

<400> 289

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala
1 5 10

<210> 290
<211> 32
<212> PRT
<213> Homo sapiens

<400> 290

Arg Phe Thr Ile Thr Arg Asp Asn Ser Lys Asn Thr Leu Asn Leu Gln
1 5 10 15

SEQUENCE LISTING

Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
20 25 30

<210> 291
<211> 30
<212> PRT
<213> Homo sapiens

<400> 291

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

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

<210> 292
<211> 14
<212> PRT
<213> Homo sapiens

<400> 292

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

<210> 293
<211> 32
<212> PRT
<213> Homo sapiens

<400> 293

Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln
1 5 10 15

Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Lys
20 25 30

<210> 294
<211> 30
<212> PRT
<213> Homo sapiens

<400> 294

SEQUENCE LISTING

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

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

<210> 295
<211> 32
<212> PRT
<213> Homo sapiens

<400> 295

Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr Met Glu
1 5 10 15

Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
20 25 30

<210> 296
<211> 30
<212> PRT
<213> Homo sapiens

<400> 296

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 Val Ser Gly Tyr Thr Leu Ser
20 25 30

<210> 297
<211> 14
<212> PRT
<213> Homo sapiens

<400> 297

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met Gly
1 5 10

<210> 298
<211> 32

SEQUENCE LISTING

<212> PRT
<213> Homo sapiens

<400> 298

Arg	Val	Thr	Met	Thr	Glu	Asp	Thr	Ser	Thr	Asp	Thr	Ala	Tyr	Met	Glu
1				5					10					15	

Leu	Ser	Ser	Leu	Lys	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Thr
			20					25					30		

<210> 299
<211> 30
<212> PRT
<213> Homo sapiens

<400> 299

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
			20					25					30

<210> 300
<211> 30
<212> PRT
<213> Homo sapiens

<400> 300

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	Ser	Ser	Gly	Tyr	Thr	Phe	Thr
			20					25					30

<210> 301
<211> 32
<212> PRT
<213> Homo sapiens

<400> 301

Arg	Val	Thr	Met	Thr	Arg	Asp	Thr	Ser	Ile	Ser	Thr	Ala	Tyr	Met	Glu
1				5					10					15	

SEQUENCE LISTING

Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys Ala Arg
20 25 30

<210> 302
<211> 30
<212> PRT
<213> Homo sapiens

<400> 302

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

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

<210> 303
<211> 33
<212> PRT
<213> Homo sapiens

<400> 303

Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln
1 5 10 15

Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
20 25 30

Gly

<210> 304
<211> 30
<212> PRT
<213> Homo sapiens

<400> 304

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser

SEQUENCE LISTING

20

25

30

<210> 305
<211> 32
<212> PRT
<213> Homo sapiens

<400> 305

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln
1 5 10 15

Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
20 25 30

<210> 306
<211> 32
<212> PRT
<213> Homo sapiens

<400> 306

Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Phe Leu Gln
1 5 10 15

Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
20 25 30

<210> 307
<211> 30
<212> PRT
<213> Homo sapiens

<400> 307

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

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

<210> 308
<211> 14
<212> PRT
<213> Homo sapiens

SEQUENCE LISTING

<400> 308

Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile Gly
1 5 10

<210> 309

<211> 32

<212> PRT

<213> Homo sapiens

<400> 309

Lys Ala Thr Ile Thr Ala Asp Glu Ser Thr Asn Thr Ala Tyr Met Glu
1 5 10 15

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

<210> 310

<211> 32

<212> PRT

<213> Homo sapiens

<400> 310

Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln
1 5 10 15

Met Asn Arg Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
20 25 30

<210> 311

<211> 30

<212> PRT

<213> Homo sapiens

<400> 311

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

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

SEQUENCE LISTING

<210> 312
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 312

Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile Gly
 1 5 10

<210> 313
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 313

Arg Val Thr Ile Ser Val Asp Lys Ser Lys Asn Gln Phe Ser Leu Lys
 1 5 10 15

Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala Arg
 20 25 30

<210> 314
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 314

Arg Phe Ala Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Phe Leu Gln
 1 5 10 15

Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
 20 25 30

<210> 315
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 315

Arg Phe Thr Ile Ser Arg Asp Asn Ala Arg Asn Ser Leu Tyr Leu Gln
 1 5 10 15

SEQUENCE LISTING

Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
20 25 30

<210> 316
<211> 30
<212> PRT
<213> Homo sapiens

<400> 316

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

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

<210> 317
<211> 14
<212> PRT
<213> Homo sapiens

<400> 317

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Gly
1 5 10

<210> 318
<211> 32
<212> PRT
<213> Homo sapiens

<400> 318

Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Leu Tyr Leu Gln
1 5 10 15

Met Asn Ser Leu Lys Ala Glu Asp Thr Ala Val Tyr Tyr Cys Thr Thr
20 25 30

<210> 319
<211> 30
<212> PRT
<213> Homo sapiens

<400> 319

SEQUENCE LISTING

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser
20 25 30

<210> 320
<211> 14
<212> PRT
<213> Homo sapiens

<400> 320

Trp Ile Arg Gln Leu Pro Gly Lys Gly Leu Glu Trp Ile Gly
1 5 10

<210> 321
<211> 32
<212> PRT
<213> Homo sapiens

<400> 321

Arg Val Thr Ile Ser Val Asp Thr Ser Lys Lys Gln Phe Ser Leu Arg
1 5 10 15

Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala Arg
20 25 30

<210> 322
<211> 30
<212> PRT
<213> Homo sapiens

<400> 322

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

Ser Leu Lys Ile Ser Cys Lys Val Ser Gly Tyr Phe Phe Thr
20 25 30

<210> 323
<211> 14
<212> PRT

SEQUENCE LISTING

<213> Homo sapiens

<400> 323

Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Tyr Met Gly
1 5 10

<210> 324

<211> 32

<212> PRT

<213> Homo sapiens

<400> 324

Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr Leu Gln
1 5 10 15

Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys Ala Arg
20 25 30

<210> 325

<211> 32

<212> PRT

<213> Homo sapiens

<400> 325

Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr Met Glu
1 5 10 15

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

<210> 326

<211> 30

<212> PRT

<213> Homo sapiens

<400> 326

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

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

SEQUENCE LISTING

<210> 327
 <211> 30
 <212> PRT
 <213> Homo sapiens

<400> 327

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	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr
			20					25					30

<210> 328
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 328

Arg	Val	Thr	Met	Thr	Thr	Asp	Thr	Ser	Thr	Ser	Thr	Ala	Tyr	Met	Glu
1				5					10					15	

Leu	Arg	Ser	Leu	Arg	Ser	Asp	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg
			20					25					30		

<210> 329
 <211> 30
 <212> PRT
 <213> Homo sapiens

<400> 329

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

Ser	Leu	Lys	Ile	Ser	Cys	Lys	Gly	Ser	Gly	Tyr	Asn	Phe	Thr
			20					25					30

<210> 330
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 330

SEQUENCE LISTING

Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Leu Met Gly
1 5 10

<210> 331
<211> 32
<212> PRT
<213> Homo sapiens

<400> 331

Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr Leu Gln
1 5 10 15

Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys Gly Ser
20 25 30

<210> 332
<211> 11
<212> PRT
<213> Homo sapiens

<400> 332

Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 333
<211> 30
<212> PRT
<213> Homo sapiens

<400> 333

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

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Arg
20 25 30

<210> 334
<211> 32
<212> PRT
<213> Homo sapiens

<400> 334

SEQUENCE LISTING

Gln Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val Val Leu Thr
1 5 10 15

Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr Cys Ala Arg
20 25 30

<210> 335
<211> 30
<212> PRT
<213> Homo sapiens

<400> 335

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

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

<210> 336
<211> 14
<212> PRT
<213> Homo sapiens

<400> 336

Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Ile Gly
1 5 10

<210> 337
<211> 32
<212> PRT
<213> Homo sapiens

<400> 337

Arg Leu Thr Ile Ser Ile Asp Thr Ser Lys Thr Gln Phe Ser Leu Lys
1 5 10 15

Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Ile Tyr Tyr Cys Val Arg
20 25 30

<210> 338
<211> 32

SEQUENCE LISTING

<212> PRT
<213> Homo sapiens

<400> 338

Arg	Phe	Ile	Ile	Ser	Arg	Asp	Lys	Ser	Lys	Asn	Thr	Leu	Tyr	Leu	Gln
1				5					10					15	

Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg
			20					25					30		

<210> 339
<211> 32
<212> PRT
<213> Homo sapiens

<400> 339

Arg	Val	Thr	Met	Thr	Arg	Asp	Thr	Ser	Ile	Ser	Thr	Ala	Tyr	Met	Glu
1				5					10					15	

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

<210> 340
<211> 30
<212> PRT
<213> Homo sapiens

<400> 340

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

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

<210> 341
<211> 32
<212> PRT
<213> Homo sapiens

<400> 341

Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala	Lys	Asn	Thr	Leu	Tyr	Leu	Gln
1				5					10					15	

SEQUENCE LISTING

Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
20 25 30

<210> 342
<211> 14
<212> PRT
<213> Homo sapiens

<400> 342

Trp Val Arg Gln Ala Pro Gly Glu Gly Leu Glu Trp Val Ala
1 5 10

<210> 343
<211> 30
<212> PRT
<213> Homo sapiens

<400> 343

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

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

<210> 344
<211> 30
<212> PRT
<213> Homo sapiens

<400> 344

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

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

<210> 345
<211> 32
<212> PRT
<213> Homo sapiens

SEQUENCE LISTING

<400> 345

Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Ser Met Glu
1 5 10 15

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

<210> 346

<211> 32

<212> PRT

<213> Homo sapiens

<400> 346

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln
1 5 10 15

Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Thr Glu
20 25 30

<210> 347

<211> 30

<212> PRT

<213> Homo sapiens

<400> 347

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

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

<210> 348

<211> 32

<212> PRT

<213> Homo sapiens

<400> 348

Arg Val Thr Met Thr Arg Asp Thr Ser Thr Asn Thr Val Tyr Met Glu
1 5 10 15

Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Met Tyr Tyr Cys Ala Arg

SEQUENCE LISTING

20

25

30

<210> 349
<211> 32
<212> PRT
<213> Homo sapiens

<400> 349

Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln
1 5 10 15

Met Asn Ser Leu Arg Asp Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
20 25 30

<210> 350
<211> 441
<212> PRT
<213> Homo sapiens

<400> 350

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

Gln Gly Arg Gly Thr Met Thr Thr Asp Pro 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 Gly Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr
100 105 110

SEQUENCE LISTING

Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro
115 120 125

Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val
130 135 140

Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala
145 150 155 160

Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly
165 170 175

Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Asn Phe Gly
180 185 190

Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys
195 200 205

Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys
210 215 220

Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
225 230 235 240

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
245 250 255

Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr
260 265 270

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
275 280 285

Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val His
290 295 300

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
305 310 315 320

SEQUENCE LISTING

Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln
 325 330 335

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met
 340 345 350

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
 355 360 365

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
 370 375 380

Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu
 385 390 395 400

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
 405 410 415

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
 420 425 430

Lys Ser Leu Ser Leu Ser Pro Gly Lys
 435 440

<210> 351
 <211> 215
 <212> PRT
 <213> Homo sapiens

<400> 351

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

SEQUENCE LISTING

Met Ile Tyr Glu Val Ser Asn 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 Asn Ser Tyr Thr Ser Thr
85 90 95

Ser Met Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gln Pro
100 105 110

Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu Glu Leu
115 120 125

Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr Pro
130 135 140

Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys Ala
145 150 155 160

Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr Ala
165 170 175

Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His Arg
180 185 190

Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys Thr
195 200 205

Val Ala Pro Thr Glu Cys Ser
210 215

<210> 352
<211> 441
<212> PRT
<213> Homo sapiens

<400> 352

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala

SEQUENCE LISTING

1	5	10	15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Leu 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 Phe Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu	50	55	60
Gln Gly Arg Gly Thr Met Thr Arg Asp Pro Ser Thr Ser Thr Ala Tyr	65	70	75
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys	85	90	95
Ala Arg Gly Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr	100	105	110
Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro	115	120	125
Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val	130	135	140
Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala	145	150	155
Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly	165	170	175
Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Asn Phe Gly	180	185	190
Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys	195	200	205
Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys			

SEQUENCE LISTING

210

215

220

Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
225 230 235 240

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
245 250 255

Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr
260 265 270

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
275 280 285

Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val His
290 295 300

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
305 310 315 320

Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln
325 330 335

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met
340 345 350

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
355 360 365

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
370 375 380

Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu
385 390 395 400

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
405 410 415

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln

SEQUENCE LISTING

420

425

430

Lys Ser Leu Ser Leu Ser Pro Gly Lys
 435 440

<210> 353
 <211> 441
 <212> PRT
 <213> Homo sapiens

<400> 353

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

Gln Gly Arg Gly Thr Met Thr Thr Asp Pro 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 Gly Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr
 100 105 110

Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro
 115 120 125

Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val
 130 135 140

Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala
 145 150 155 160

SEQUENCE LISTING

Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly
165 170 175

Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Asn Phe Gly
180 185 190

Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys
195 200 205

Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys
210 215 220

Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
225 230 235 240

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
245 250 255

Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr
260 265 270

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
275 280 285

Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val His
290 295 300

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
305 310 315 320

Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln
325 330 335

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met
340 345 350

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
355 360 365

SEQUENCE LISTING

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
370 375 380

Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu
385 390 395 400

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
405 410 415

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
420 425 430

Lys Lys Leu Ser Leu Ser Pro Gly Lys
435 440

<210> 354
<211> 441
<212> PRT
<213> Homo sapiens

<400> 354

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

Gln Gly Arg Gly Thr Met Thr Arg Asp Pro Ser Thr 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

SEQUENCE LISTING

Ala Arg Gly Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr
100 105 110

Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro
115 120 125

Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val
130 135 140

Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala
145 150 155 160

Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly
165 170 175

Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Asn Phe Gly
180 185 190

Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys
195 200 205

Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys
210 215 220

Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
225 230 235 240

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
245 250 255

Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr
260 265 270

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
275 280 285

Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val His
290 295 300

SEQUENCE LISTING

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
305 310 315 320

Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln
325 330 335

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met
340 345 350

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
355 360 365

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
370 375 380

Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu
385 390 395 400

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
405 410 415

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
420 425 430

Lys Lys Leu Ser Leu Ser Pro Gly Lys
435 440

<210> 355
<211> 220
<212> PRT
<213> Homo sapiens

<400> 355

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

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Asp Ser
20 25 30

SEQUENCE LISTING

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

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Asn Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

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

Tyr Tyr Ser Asp Pro Phe Thr Phe Gly Pro Gly Thr Lys Val Asp Ile
100 105 110

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

<210> 356
<211> 446
<212> PRT
<213> Homo sapiens

SEQUENCE LISTING

<400> 356

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 Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu
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 Glu Ser Trp Phe Gly Glu Val Phe Phe Asp Tyr Trp Gly Gln
100 105 110

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

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys

SEQUENCE LISTING

195

200

205

Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val
 210 215 220

Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe
 225 230 235 240

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
 245 250 255

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
 260 265 270

Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
 275 280 285

Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val
 290 295 300

Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
 305 310 315 320

Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
 325 330 335

Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
 340 345 350

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
 355 360 365

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
 370 375 380

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp
 385 390 395 400

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp

SEQUENCE LISTING

405

410

415

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
420 425 430

Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
435 440 445

<210> 357
<211> 446
<212> PRT
<213> Homo sapiens

<400> 357

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 Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr 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 Ser Trp Phe Gly Glu Val Phe Phe Asp Tyr Trp Gly Gln
100 105 110

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

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130 135 140

SEQUENCE LISTING

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val
210 215 220

Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe
225 230 235 240

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
245 250 255

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
260 265 270

Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
275 280 285

Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val
290 295 300

Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
305 310 315 320

Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
325 330 335

Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
340 345 350

SEQUENCE LISTING

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
355 360 365

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
370 375 380

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp
385 390 395 400

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
405 410 415

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
420 425 430

Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
435 440 445

<210> 358
<211> 446
<212> PRT
<213> Homo sapiens

<400> 358

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 Lys Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu
50 55 60

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

SEQUENCE LISTING

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

Ala Arg Glu Ser Trp Phe Gly Glu Val Phe Phe Asp Tyr Trp Gly Gln
100 105 110

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

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Asn Phe Gly Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val
210 215 220

Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe
225 230 235 240

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
245 250 255

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
260 265 270

Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
275 280 285

SEQUENCE LISTING

Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val
290 295 300

Leu Thr Val Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
305 310 315 320

Lys Val Ser Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
325 330 335

Lys Thr Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
340 345 350

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
355 360 365

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
370 375 380

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp
385 390 395 400

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
405 410 415

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
420 425 430

Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
435 440 445

<210> 359
<211> 450
<212> PRT
<213> Homo sapiens

<400> 359

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

SEQUENCE LISTING

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

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

Ala Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala Val
50 55 60

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

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

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

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

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
210 215 220

SEQUENCE LISTING

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
290 295 300

Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

SEQUENCE LISTING

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 435 440 445

Gly Lys
 450

<210> 360
 <211> 214
 <212> PRT
 <213> Homo sapiens

<400> 360

Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
 20 25 30

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

Tyr Gly Ala Ala Thr Arg Ala Thr Gly Ile Pro Ala Arg Val Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
 65 70 75 80

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

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
 100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
 115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln

SEQUENCE LISTING

SEQUENCE LISTING

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

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
210 215 220

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
290 295 300

Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

SEQUENCE LISTING

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 362
<211> 450
<212> PRT
<213> Homo sapiens

<400> 362

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

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

SEQUENCE LISTING

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

Ala Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala Val
50 55 60

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

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

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

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

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
210 215 220

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225 230 235 240

SEQUENCE LISTING

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
290 295 300

Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

SEQUENCE LISTING

Gly Lys
450

<210> 363
<211> 214
<212> PRT
<213> Homo sapiens

<400> 363

Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
20 25 30

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

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

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro
65 70 75 80

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

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

SEQUENCE LISTING

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 364
<211> 450
<212> PRT
<213> Homo sapiens

<400> 364

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

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

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

Ala Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala Val
50 55 60

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

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

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

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val

SEQUENCE LISTING

115

120

125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 180 185 190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
 210 215 220

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 275 280 285

Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
 290 295 300

Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu

SEQUENCE LISTING

325

330

335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 365
<211> 214
<212> PRT
<213> Homo sapiens

<400> 365

Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
20 25 30

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

SEQUENCE LISTING

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

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro
65 70 75 80

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

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 366

<211> 441

<212> PRT

<213> Homo sapiens

<400> 366

SEQUENCE LISTING

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

Gln Gly Arg Gly Thr Met Thr Thr Asp Pro 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 Gly Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr
100 105 110

Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro
115 120 125

Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val
130 135 140

Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala
145 150 155 160

Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly
165 170 175

Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Asn Phe Gly
180 185 190

Thr Gln Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys
195 200 205

SEQUENCE LISTING

Val Asp Lys Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys
210 215 220

Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
225 230 235 240

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
245 250 255

Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr
260 265 270

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
275 280 285

Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val His
290 295 300

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
305 310 315 320

Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln
325 330 335

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met
340 345 350

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
355 360 365

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
370 375 380

Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu
385 390 395 400

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
405 410 415

SEQUENCE LISTING

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
420 425 430

Lys Lys Leu Ser Leu Ser Pro Gly Lys
435 440

<210> 367
<211> 214
<212> PRT
<213> Homo sapiens

<400> 367

Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
20 25 30

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

Tyr Gly Ala Ala Thr Arg Ala Thr Gly Ile Pro Ala Arg Val Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80

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

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

SEQUENCE LISTING

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 368
<211> 450
<212> PRT
<213> Homo sapiens

<400> 368

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

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

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

Ala Ala Ile Trp Phe Asp Ala Ser Asp Lys Tyr Tyr Ala Asp Ala Val
50 55 60

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

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

Ala Arg Asp Gln Ala Ile Phe Gly Val Val Pro Asp Tyr Trp Gly Gln

SEQUENCE LISTING

100

105

110

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

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
210 215 220

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Cys Glu Glu Gln Tyr Gly Ser Thr Tyr Arg
290 295 300

Cys Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys

SEQUENCE LISTING

305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
340 345 350

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Lys Leu Ser Leu Ser Pro
435 440 445

Gly Lys
450

<210> 369
<211> 692
<212> PRT
<213> Homo sapiens

<400> 369

Met Gly Thr Val Ser Ser Arg Arg Ser Trp Trp Pro Leu Pro Leu Leu
1 5 10 15

Leu Leu Leu Leu Leu Leu Gly Pro Ala Gly Ala Arg Ala Gln Glu
20 25 30

SEQUENCE LISTING

Asp Glu Asp Gly Asp Tyr Glu Glu Leu Val Leu Ala Leu Arg Ser Glu
35 40 45

Glu Asp Gly Leu Ala Glu Ala Pro Glu His Gly Thr Thr Ala Thr Phe
50 55 60

His Arg Cys Ala Lys Asp Pro Trp Arg Leu Pro Gly Thr Tyr Val Val
65 70 75 80

Val Leu Lys Glu Glu Thr His Leu Ser Gln Ser Glu Arg Thr Ala Arg
85 90 95

Arg Leu Gln Ala Gln Ala Ala Arg Arg Gly Tyr Leu Thr Lys Ile Leu
100 105 110

His Val Phe His Gly Leu Leu Pro Gly Phe Leu Val Lys Met Ser Gly
115 120 125

Asp Leu Leu Glu Leu Ala Leu Lys Leu Pro His Val Asp Tyr Ile Glu
130 135 140

Glu Asp Ser Ser Val Phe Ala Gln Ser Ile Pro Trp Asn Leu Glu Arg
145 150 155 160

Ile Thr Pro Pro Arg Tyr Arg Ala Asp Glu Tyr Gln Pro Pro Asp Gly
165 170 175

Gly Ser Leu Val Glu Val Tyr Leu Leu Asp Thr Ser Ile Gln Ser Asp
180 185 190

His Arg Glu Ile Glu Gly Arg Val Met Val Thr Asp Phe Glu Asn Val
195 200 205

Pro Glu Glu Asp Gly Thr Arg Phe His Arg Gln Ala Ser Lys Cys Asp
210 215 220

Ser His Gly Thr His Leu Ala Gly Val Val Ser Gly Arg Asp Ala Gly
225 230 235 240

SEQUENCE LISTING

Val Ala Lys Gly Ala Ser Met Arg Ser Leu Arg Val Leu Asn Cys Gln
245 250 255

Gly Lys Gly Thr Val Ser Gly Thr Leu Ile Gly Leu Glu Phe Ile Arg
260 265 270

Lys Ser Gln Leu Val Gln Pro Val Gly Pro Leu Val Val Leu Leu Pro
275 280 285

Leu Ala Gly Gly Tyr Ser Arg Val Leu Asn Ala Ala Cys Gln Arg Leu
290 295 300

Ala Arg Ala Gly Val Val Leu Val Thr Ala Ala Gly Asn Phe Arg Asp
305 310 315 320

Asp Ala Cys Leu Tyr Ser Pro Ala Ser Ala Pro Glu Val Ile Thr Val
325 330 335

Gly Ala Thr Asn Ala Gln Asp Gln Pro Val Thr Leu Gly Thr Leu Gly
340 345 350

Thr Asn Phe Gly Arg Cys Val Asp Leu Phe Ala Pro Gly Glu Asp Ile
355 360 365

Ile Gly Ala Ser Ser Asp Cys Ser Thr Cys Phe Val Ser Gln Ser Gly
370 375 380

Thr Ser Gln Ala Ala Ala His Val Ala Gly Ile Ala Ala Met Met Leu
385 390 395 400

Ser Ala Glu Pro Glu Leu Thr Leu Ala Glu Leu Arg Gln Arg Leu Ile
405 410 415

His Phe Ser Ala Lys Asp Val Ile Asn Glu Ala Trp Phe Pro Glu Asp
420 425 430

Gln Arg Val Leu Thr Pro Asn Leu Val Ala Ala Leu Pro Pro Ser Thr
435 440 445

SEQUENCE LISTING

His Gly Ala Gly Trp Gln Leu Phe Cys Arg Thr Val Trp Ser Ala His
450 455 460

Ser Gly Pro Thr Arg Met Ala Thr Ala Ile Ala Arg Cys Ala Pro Asp
465 470 475 480

Glu Glu Leu Leu Ser Cys Ser Ser Phe Ser Arg Ser Gly Lys Arg Arg
485 490 495

Gly Glu Arg Met Glu Ala Gln Gly Gly Lys Leu Val Cys Arg Ala His
500 505 510

Asn Ala Phe Gly Gly Glu Gly Val Tyr Ala Ile Ala Arg Cys Cys Leu
515 520 525

Leu Pro Gln Ala Asn Cys Ser Val His Thr Ala Pro Pro Ala Glu Ala
530 535 540

Ser Met Gly Thr Arg Val His Cys His Gln Gln Gly His Val Leu Thr
545 550 555 560

Gly Cys Ser Ser His Trp Glu Val Glu Asp Leu Gly Thr His Lys Pro
565 570 575

Pro Val Leu Arg Pro Arg Gly Gln Pro Asn Gln Cys Val Gly His Arg
580 585 590

Glu Ala Ser Ile His Ala Ser Cys Cys His Ala Pro Gly Leu Glu Cys
595 600 605

Lys Val Lys Glu His Gly Ile Pro Ala Pro Gln Gly Gln Val Thr Val
610 615 620

Ala Cys Glu Glu Gly Trp Thr Leu Thr Gly Cys Ser Ala Leu Pro Gly
625 630 635 640

Thr Ser His Val Leu Gly Ala Tyr Ala Val Asp Asn Thr Cys Val Val
645 650 655

SEQUENCE LISTING

Arg Ser Arg Asp Val Ser Thr Thr Gly Ser Thr Ser Glu Glu Ala Val
660 665 670

Thr Ala Val Ala Ile Cys Cys Arg Ser Arg His Leu Ala Gln Ala Ser
675 680 685

Gln Glu Leu Gln
690

<210> 370
<211> 14
<212> PRT
<213> Homo sapiens

<400> 370

Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr Asn Ser Val Ser
1 5 10

<210> 371
<211> 7
<212> PRT
<213> Homo sapiens

<400> 371

Glu Val Ser Asn Arg Pro Ser
1 5

<210> 372
<211> 9
<212> PRT
<213> Homo sapiens

<400> 372

Asn Ser Tyr Thr Ser Thr Ser Met Val
1 5

<210> 373
<211> 10
<212> PRT
<213> Homo sapiens

SEQUENCE LISTING

<400> 373

Gly Tyr Thr Leu Thr Ser Tyr Gly Ile Ser
1 5 10

<210> 374

<211> 16

<212> PRT

<213> Homo sapiens

<400> 374

Trp Val Ser Phe Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu Gln
1 5 10 15

<210> 375

<211> 6

<212> PRT

<213> Homo sapiens

<400> 375

Gly Tyr Gly Met Asp Val
1 5

<210> 376

<211> 115

<212> PRT

<213> Homo sapiens

<400> 376

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 Leu 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 Phe Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu
50 55 60

Gln Gly Arg Gly Thr Met Thr Thr Asp Pro Ser Thr Ser Thr Ala Tyr

SEQUENCE LISTING

65 70 75 80

Ala Arg Gly Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr
100 105 110

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<210> 377
<211> 109
<212> PRT
<213> Homo sapiens
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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 Ser Val Ser Trp Tyr Gln Gln His Pro Gly Lys Ala Pro Lys Leu
35 40 45

Met Ile Tyr Glu Val Ser Asn 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 Asn Ser Tyr Thr Ser Thr
85 90 95

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

$\langle 210 \rangle$	378
$\langle 211 \rangle$	115

SEQUENCE LISTING

<212> PRT
<213> Homo sapiens

<400> 378

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 Leu 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 Phe Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu
50 55 60

Gln Gly Arg Gly Thr Met Thr Thr Asp Pro 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 Gly Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr
100 105 110

Val Ser Ser
115

<210> 379
<211> 109
<212> PRT
<213> Homo sapiens

<400> 379

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

SEQUENCE LISTING

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

Met Ile Tyr Glu Val Ser Asn 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 Asn Ser Tyr Thr Ser Thr
 85 90 95

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