

SEQUENCE LISTING

<110> AMGEN INC.
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<120> LOW-VISCOSITY ANTIGEN BINDING PROTEINS AND METHODS OF MAKING THEM

<130> A-2063-US-PSP3

<160> 379

<170> PatentIn version 3.5

<210> 1

<211> 705

<212> DNA

<213> Homo sapiens

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

<400> 2

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Asp Thr Thr Gly Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser
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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

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> 3
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<212> DNA
<213> Homo sapiens

<400> 3
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<210> 4
 <211> 463
 <212> PRT
 <213> Homo sapiens

<400> 4

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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 Ser 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
 65 70 75 80

Gln Lys Phe Lys 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 Asp Lys Trp Leu Asp Gly 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
 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
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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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<211> 726
<212> DNA
<213> Homo sapiens

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<210> 6
<211> 242
<212> PRT
<213> Homo sapiens

<400> 6

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
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Leu Arg Gly Ala Arg Cys Asp Ile Val Met Thr Gln Thr 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 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
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
210 215 220

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

Glu Cys

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

<400> 7

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<210> 8

<211> 465

<212> PRT

<213> Homo sapiens

<400> 8

Met Glu Leu Gly Leu Cys Trp Val Phe Leu Val Ala Ile Leu Glu Gly
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Val Gln 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 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

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
 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> 9
 <211> 699
 <212> DNA
 <213> Homo sapiens

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<210> 10
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 10

Met	Ser	Pro	Ser	Gln	Leu	Ile	Gly	Phe	Leu	Leu	Leu	Trp	Val	Pro	Ala
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Ser	Arg	Gly	Glu	Ile	Val	Leu	Thr	Gln	Ser	Pro	Asp	Phe	Gln	Ser	Val
			20					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
 225 230

<210> 11
 <211> 1389
 <212> DNA
 <213> Homo sapiens

<400> 11
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aacaaaggcc tcccagcccc catcgagaaa accatctcca aaaccaaagg gcagccccga	1080
gaaccacagg tgtacaccct gccccatcc cgggaggaga tgaccaagaa ccaggtcagc	1140
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ccgggtaaa	1389

<210> 12
 <211> 463
 <212> PRT
 <213> Homo sapiens

<400> 12

Met	Gly	Ser	Thr	Ala	Ile	Leu	Ala	Leu	Leu	Leu	Ala	Val	Leu	Gln	Gly
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Val	Cys	Ala	Glu	Val	Gln	Leu	Met	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 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

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

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> 13

<211> 708

<212> DNA

<213> Homo sapiens

<400> 13

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 tcccaggaga gtgtcacaga gcaggacagc aaggacagca cctacagcct cagcagcacc 600
 ctgacgctga gcaaagcaga ctacgagaaa cacaaagtct acgcctgcga agtcacccat 660
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<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
 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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 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
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 tccctcagca gcgtgggtgac cgtgccctcc agcagcttgg gcacccagac ctacatctgc 660
 aacgtgaatc acaagcccag caacaccaag gtggacaaga aagttgagcc caaatcttgt 720
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<210> 16
 <211> 467
 <212> PRT
 <213> Homo sapiens

<400> 16

Met	Asp	Met	Arg	Val	Pro	Ala	Gln	Leu	Leu	Gly	Leu	Leu	Leu	Leu	Trp
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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	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	

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

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
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gtcaccatca cttgtcgggc gagtcagggt attagcaact ggtagcctg gtatcagcag 180
aaaccagaga aagcccctaa gtccctgatc tatgctgcat ccagtttgca aagtggggtc 240

ccatcaaggt tcagcggcag tggatctggg acagatttca ctctcaccat cagcagcctg	300
cagcctgaag attttgcaac ttattactgc caacagtatg atagttaccc tcggacgttc	360
ggccaagggga ccaaggtgga aatcaaacga actgtggctg caccatctgt cttcatcttc	420
ccgccatctg 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
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<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	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
				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
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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gcctccacca agggcccatc ggtcttcccc ctggcgccct gctccaggag cacctccgag	480
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caggtcagcc tgacctgcct ggtcaaaggc ttctaccca gcgacatcg cgtggagtgg	1200
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<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		

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 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 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
145 150 155 160

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

<400> 21
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tgt 723

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

<400> 22

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

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
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tgcaccttct ctgggttctc actccgcact agtggaatgg gcgtgggctg gatccgtcag 180
ccccaggaa aggccctgga gtggcttgcc cacatttggt gggatgatga taagagctac 240
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cttacaatga ccaacatgga ccctgtggac acagccacat attactgtgc acgcagaaac 360
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gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg 480
ggcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacggtgtcg 540
tggaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca 600
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tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagaa agttgagccc 720

aaatcttgtg acaaaaactca cacatgcccc ccgtgcccag cacctgaact cctgggggga	780
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<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
		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
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

atggaaaccc cggcgcagct gctgtttctg ctgctgctgt ggctgccgga taccaccggc 60

gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 120

ctctcctgca gggccagtca gagtgttagc agcagctact tcgcctggta ccaacagaaa 180

cctggccagg ctcccaggct cctcatctat ggtacatcca gcagggccac tggcatccca 240

gacagggttca gtggcagtggt gtctgggaca gacttcactc tcaccgtcag cagactggag 300

cctgaggatt ttgcagtgtta ttactgtcag cagtatgata ggtcacctcg gacgttcggc 360

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 cacccatcag 660

ggcctgagct cgcccgtcac aaagagcttc aacagggggag agtgt 705

<210> 26

<211> 235

<212> PRT

<213> Homo sapiens

<400> 26

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

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 acaggccccct 180
ggacaagggc ttgagtggat gggatggatc aaccctaaca gtggtggcac aaactatgca 240
caaaagtttc agggcagggt caccatgacc agggacacgt ccatcagcac agcctccatg 300
gaactgagca ggctgagatc tgacgacacg gccgtttatt tctgtgagag agatcggtgg 360
ctggatgctt ttgatatctg gggccaaggg acaatgggtca ccgtctcttc tgctagcacc 420
aagggcccat cggctcttccc cctggcgccc tgctccagga gcacctccga gagcacagcg 480
gccctgggct gcctgggtcaa ggactacttc cccgaaccgg tgacgggtgtc gtggaactca 540
ggcgctctga 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
ccaaaaccca aggacaccct catgatctcc cggacccctg aggtcacgtg cgtgggtgggtg 840
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cataatgcca agacaaaagcc acgggaggag cagttcaaca gcacgttccg tgtggtcagc 960
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aaciaaaggcc tcccagcccc catcgagaaa accatctcca aaaccaaagg gcagccccga 1080
gaaccacagg tgtacacctt gccccatcc cgggaggaga tgaccaagaa ccaggtcagc 1140
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ttcctctaca gcaagctcac cgtggacaag agcagggtggc agcaggggaa cgtcttctca 1320

tgctccgtga tgcattgaggc tctgcacaac cactacacgc agaagagcct ctccctgtct 1380

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<210> 28

<211> 463

<212> PRT

<213> Homo sapiens

<400> 28

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

<400> 29
 atggaaaccc cagctcagct tctcttcctc ctgctactct ggctcccaga taccaccgga 60
 gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 120
 ctctcctgca gggccagtca gagtgtagc 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 cacccatcag	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			

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
 <213> Homo sapiens

<400> 31
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 cgctgtcagg tgcagctggg ggagtctggg ggaggcgtgg tccagcctgg gaggtccctg 120
 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 catcgggtctt ccccctggcg 480
 ccctgctcca ggagcacctc cgagagcaca gcggccctgg gctgcctggt caaggactac 540

ttccccgaac cggtgacggt gtcgtggaac tcaggcgctc tgaccagcgg cgtgcacacc	600
ttcccagctg tcctacagtc ctcaggactc tactccctca gcagcgtggt gaccgtgccc	660
tccagcaact tcggcaccca gacctacacc tgcaacgtag atcacaagcc cagcaacacc	720
aaggtggaca agacagttga gcgcaaatgt tgtgtcgagt gcccaccgtg cccagcacca	780
cctgtggcag gaccgtcagt cttcctcttc cccccaaaac ccaaggacac cctcatgac	840
tcccggaccc ctgaggtcac gtgcgtgggtg gtggacgtga gccacgaaga ccccgaggtc	900
cagttcaact ggtacgtgga cggcgtggag gtgcataatg ccaagacaaa gccacgggag	960
gagcagttca acagcacgtt ccgtgtgggtc agcgtcctca ccgttgtgca ccaggactgg	1020
ctgaacggca aggagtacaa gtgcaagggtc tccaacaaaag gcctcccagc ccccatcgag	1080
aaaaccatct ccaaaaccaa agggcagccc cgagaaccac aggtgtacac cctgccccca	1140
tcccgggagg agatgaccaa gaaccagggtc agcctgacct gcctgggtcaa aggcttctac	1200
cccagcgaca tcgccgtgga gtgggagagc aatgggcagc cggagaacaa ctacaagacc	1260
acacctccca tgctggactc cgacgggtcc ttcttcctct acagcaagct caccgtggac	1320
aagagcaggt ggcagcaggg gaacgtcttc tcatgctccg tgatgcatga ggctctgcac	1380
aaccactaca cgcagaagag cctctccctg tctccgggta aa	1422

<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
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
 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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 agctcctggg gctcctgctg ctgtggctga gaggtgcgcg ctgttcttct gagctgactc 180
 aggaccctac tgtgtctgtg gccttgggac agacagtcaa aatcacatgc caaggagaca 240
 gcctcagaag tttttatgca agctgggtacc agcagaagcc aggacaggcc cctgtacttg 300
 tcttctatgg taaaaacaac cggccctcag ggatcccaga ccgattctct ggctccagct 360
 caggaaacac agcttccttg accatcactg gggctcaggc ggaagatgag gctgactatt 420
 attgtaattc ccgggacagc agtgtttacc atctgggtact cggcggaggg accaagctga 480
 ccgtcctagg tcagcccaag gccaaaccca ctgtcactct gttcccggcc tcctctgagg 540
 agctccaagc caacaaggcc aactagtgt gtctgatcag tgacttctac ccgggagctg 600
 tgacagtggc ctggaaggca gatggcagcc ccgtcaaggc gggagtggag accaccaaac 660
 cctccaaaca gagcaacaac aagtacgcgg ccagcagcta cctgagcctg acgcccgagc 720
 agtggaagtc ccacagaagc tacagctgcc aggtcacgca tgaagggagc 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

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
 caggccccctg gacaagggtc tgagtggatg ggatggatca accctaacag tgggtggcaca 240
 aactatgcac agaagtttca gggcagggtc accatgacca gggacacgtc catcagcaca 300
 gcctacatgg agctgagcag gctgagatct gacgacacgg ccgtgtatatt ctgtgcgaga 360
 gatcaaatga gtattattat gcttcgggga gtttttcccc cttactatta cggtatggac 420
 gtctggggcc aaggggaccac gggtaccgtc tctagtgctt ccaccaaggg cccatcggtc 480
 ttccccctgg cgccctgctc caggagcacc tccgagagca cagcggccct gggctgcctg 540
 gtcaaggact acttccccga accggtgacg gtgtcgtgga actcaggcgc tctgaccagc 600
 ggcgtgcaca cttcccagc tgtcctacag tcctcaggac tctactccct cagcagcgtg 660
 gtgaccgtgc cctccagcaa cttcggcacc cagacctaca cctgcaacgt agatcacaag 720
 cccagcaaca ccaagggtgga caagacagtt gagcgcaaatt gttgtgtcga gtgcccaccg 780
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 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 agaaaaccat ctccaaaacc aaagggcagc cccgagaacc acaggtgtac	1140
accctgcccc catcccggga ggagatgacc aagaaccagg tcagcctgac ctgcctggtc	1200
aaaggcttct accccagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac	1260
aactacaaga ccacacctcc catgctggac tccgacggct ctttcttcct ctacagcaag	1320
ctcaccgtgg acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat	1380
gaggctctgc acaaccacta cacgcagaag agcctctccc tgtctccggg taaa	1434

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

<400> 36

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
			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
290 295 300

Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr

agatgtgata ttgtgatgac tcagtctcca ctctccctgc ccgtcacccc tggagagccg	120
gcctccatct cctgcaggtc tagtcagagc ctctgcata gtaatggata caactatttg	180
gattgggtacc tgcagaagcc agggcagtcct ccacagctcc tgatctatatt gggttcta	240
cgggcctccg ggggtccctga cagggttcagt ggagtggtgat caggcacaga ttttacactg	300
aaaatcagca gaggggaggc tgaggatgtt ggggtttatt actgcatgca agctctacaa	360
actccgctca ctttcggcgg agggaccaag gtagagatca aacggactgt ggctgcacca	420
tctgtcttca tcttcccgcc atctgatgag cagttgaaat ctggaactgc ctctgttgtg	480
tgctgtctga ataacttcta tcccagagag gccaaagtac agtgggaagg ggataacgcc	540
ctccaatcgg gtaactccca ggagagtgtc acagagcagg acagcaagga cagcacctac	600
agcctcagca gcacctgac gctgagcaaa gcagactacg agaaacacaa agtctacgcc	660
tgcaagtca cccatcaggg cctgagctcg ccggtcacia agagcttcaa caggggagag	720
tgt	723

<210> 38
 <211> 241
 <212> PRT
 <213> Homo sapiens

<400> 38

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	
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					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

<210> 39
 <211> 1425
 <212> DNA

<213> Homo sapiens

<400> 39

atggacatga ggggtgcccgc tcagctcctg gggctcctgc tgctgtggct gagaggtgcc	60
agatgtgagg tgcagctggt ggagtctggg ggaggcttgg tccagcctgg ggggtccctg	120
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 gcccatcggc 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 tagatcacao gcccagcaac	720
accaaggtgg acaagacagt tgagcgcaaa tgttgtgtcg agtgcccacc gtgcccagca	780
ccacctgtgg caggaccgtc agtcttcctc ttcccccaa aaccaagga caccctcatg	840
atctcccga 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
gagaaaaacca tctcaaaaac caaagggcag ccccgagaac cacaggtgta caccctgccc	1140
ccatcccggg 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
<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

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

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
 gattggtacc tgcagaagcc agggcagctc ccacagctcc tgatctatatt gggttctaata 240
 cgggcctccg ggggtccctga cagggttcagt ggcagtgatg caggcacaca tcttacactg 300
 aaaatcagca gagggtggaggc tgaggatgtt ggagtttatt actgcatgca aactctacaa 360
 actccgctca ctttcggcgg agggaccaag gtagagatca aacggactgt ggctgcacca 420
 tctgtcttca tcttcccgc atctgatgag cagttgaaat ctggaactgc ctctgttgtg 480

tgctgctga ataacttcta tcccagagag gccaaagtac agtggaaggt ggataacgcc	540
ctccaatcgg gtaactccca ggagagtgtc acagagcagg acagcaagga cagcacctac	600
agcctcagca gcacctgac gctgagcaaa gcagactacg agaaacacaa agtctacgcc	660
tgcgaagtca cccatcaggg cctgagctcg cccgtcacia agagcttcaa caggggagag	720
tgt	723

<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

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 taatggtgta tgatatagac tactactact acggtatgga cgtctggggc	420
caagggacca cggtcaccgt ctctcagcc 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 tagatcacia gcccagcaac	720
accaagggtgg acaagacagt tgagcgcaaa tgttgtgtcg agtgcccacc gtgcccagca	780
ccacctgtgg caggaccgtc agtcttcctc ttccccccaa aacccaagga caccctcatg	840
atctcccga 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
gagaaaaacca tctccaaaac caaagggcag ccccgagaac cacagggtgta caccctgccc	1140
ccatcccggg 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> 44
 <211> 475
 <212> PRT
 <213> Homo sapiens

<400> 44

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
 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
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

<400> 45

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tctgtgttga cgcagccgcc ctgagtgctt gcggcccccag gacagaaggt caccatctcc 120

tgctctggaa gcagctccaa cattgggaat aattatgtat cctggtacca gcagctccca 180

ggaacagccc ccaaactcct catttatgac aataataagc gaccctcagg gattcctgac 240

cgattctctg gctccaagtc tggcacgtca accaccctgg gcatcaccgg actccagact 300

ggggacgagg ccgattatta ctgcggaaca tgggatagcc gcctgagtgc tgtgggtttc 360

ggcggaggga ccaagctgac cgtcctaggt cagcccaagg ccaacccac tgtcactctg 420

ttcccgccct cctctgagga gctccaagcc aacaaggcca cactagtgtg tctgatcagt 480

gacttctacc cgggagctgt gacagtggcc tggaaggcag atggcagccc cgtcaaggcg 540

ggagtggaga ccaccaaacc ctccaaacag agcaacaaca agtacgcggc cagcagctac 600

ctgagcctga cgcccgagca 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

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
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 gtgcagctgg tggaatctgg gggaggcgtg gtccagcctg ggaggtcctt gagactctcc 120
 tgtgcagcct ctggattcac cttcagtagc tttggcatgc actgggtccg ccaggctcca 180
 ggcaaggggc tggagtgggt ggcagttata tcatttgatg gaagtattaa gtattctgta 240
 gactccgtga agggccgatt caccatctcc agagacaatt caaagaacac gctgtttctg 300
 caaatgaaca gcctgcgagc cgaggacacg gctgtgtatt actgtgcgag agatcggctc 360
 aattactatg atagtagtgg ttattatcac tacaaatact acggtatggc cgtctggggc 420
 caagggacca cggtcaccgt ctctagtgcc tccaccaagg gcccatcggg cttccccctg 480
 gcgccctgct ccaggagcac ctccgagagc acagcggccc tgggctgcct ggtcaaggac 540
 tacttccccg aaccgggtgac ggtgtcgtgg aactcaggcg ctctgaccag cggcgtgcac 600
 accttcccag ctgtcctaca gtcctcagga ctctactccc tcagcagcgt ggtgaccgtg 660
 ccctccagca acttcggcac ccagacctac acctgcaacg tagatcacia gccagcaac 720
 accaagggtg acaagacagt tgagcgcaaa tgttgtgtcg agtgcccacc gtgcccagca 780
 ccacctgtgg caggaccgtc agtcttcctc ttccccccaa aacccaagga caccctcatg 840
 atctccccga cccctgaggt cacgtgcgtg gtgggtggacg tgagccacga agaccccag 900
 gtccagttca actggtacgt ggacggcgtg gaggtgcata atgccaagac aaagccacgg 960

gaggagcagt tcaacagcac gttccgtgtg gtcagcgtcc tcaccgttgt gcaccaggac	1020
tggctgaacg gcaaggagta caagtgcaag gtctccaaca aaggcctccc agcccccatc	1080
gagaaaacca tctccaaaac caaagggcag ccccgagaac cacagggtgta caccctgccc	1140
ccatcccggg aggagatgac caagaaccag gtcagcctga cctgcctggc 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> 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
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	Phe	Gly	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu
	50					55					60				

Glu	Trp	Val	Ala	Val	Ile	Ser	Phe	Asp	Gly	Ser	Ile	Lys	Tyr	Ser	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	Phe	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

100

105

110

Tyr Tyr Cys Ala Arg Asp Arg Leu Asn Tyr Tyr Asp Ser Ser Gly Tyr
 115 120 125

Tyr His Tyr Lys Tyr Tyr Gly Met Ala 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
 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> 49
<211> 702
<212> DNA
<213> Homo sapiens

<400> 49
atggacatga ggggtgcccgc tcagctcctg gggctcctgc tgctgtggct gagagggtgcc 60
agatgttatg agctgactca gccaccctca gtgtccgtgt ccccaggaca gacagccacc 120
atcacctgct ctggagataa attgggggaa agatatgcgt cttgggtatca gcagaggcca 180
ggccagtccc ctgtactggg catctatcaa gatatcaagc ggccctcagg gatccctgag 240
cgattctctg gctccaactc tgggaacaca gccactctga ccatcagcgg gaccaggct 300
atggatgagg ctgactatct ctgtcaggcg tggtagagca gcaccaatgt gcttttcggc 360
ggagggacca agctgaccgt cctagggtcag 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 gctgccagggt cacgcatgaa 660
gggagcaccg tggagaagac agtggcccct acagaatgtt ca 702

<210> 50
<211> 234
<212> PRT
<213> Homo sapiens

<400> 50

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly 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
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
 atggagtttg ggctgagctg ggttttcctc gttgctcttt taagaggtgt ccagtgtcag

gtgcagctgg tggagtctgg gggaggcgtg gtccagcctg ggaggtcctt gagactctcc	120
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 actgtgcgag agcccaggag	360
ggtatagccc ctgacgcttt tgatatctgg ggccaaggaa caatggtcac cgtctcttca	420
gcctccacca agggcccatc ggtcttcccc ctggcgccct gctccaggag cacctccgag	480
agcacagcgg ccctgggctg cctggtaag gactacttcc ccgaaccggt gacgggtgtcg	540
tggaactcag gcgctctgac cagcggcgtg cacaccttcc cagctgtcct acagtcctca	600
ggactctact ccctcagcag cgtggtgacc gtgccctcca gcaacttcgg caccagacc	660
tacacctgca acgtagatca caagcccagc aacaccaagg tggacaagac agttgagcgc	720
aaatgttgtg tcgagtgtcc accgtgtcca gcaccacctg tggcaggacc gtcagtcttc	780
ctcttcccc caaaacccaa ggacaccctc atgatctccc ggacccctga ggtcacgtgc	840
gtggtgggtg acgtgagcca cgaagacccc gaggtccagt tcaactggta cgtggacggc	900
gtggagggtg ataatgccaa gacaaagcca cgggaggagc agttcaacag cacgttccgt	960
gtggtcagcg tcctcaccgt tgtgcaccag gactggctga acggcaagga gtacaagtgc	1020
aaggctctcca acaaaggcct ccagccccc atcgagaaaa ccatctccaa aaccaaaggg	1080
cagccccgag aaccacaggt gtacaccctg ccccatccc gggaggagat gaccaagaac	1140
caggtcagcc tgacctgcct ggtcaaaggc ttctaccca gcgacatcg cgtggagtgg	1200
gagagcaatg ggcagccgga gaacaactac aagaccacac ctcccatgct ggactccgac	1260
ggctccttct tcctctacag caagctcacc gtggacaaga gcagggtggca gcaggggaac	1320
gtcttctcat gctccgtgat gcatgaggct ctgcacaacc actacacgca gaagagctc	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
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
 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 cgcagtctcc aggcaccctg tctttgtctc caggggaaag agccaccctc 120
 tcctgcaggg ccagtcagag tgtagcagc agctacttag cctggcacca gcagaaacct 180
 ggccaggctc ccaggctcct catctatggt gcatccagca gggccactgg catcccagac 240
 aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcagcag actggagcct 300
 gaagattttg cagtgtatta ctgtcagcag tatggtagct caccgtggac gttcggccaa 360
 gggaccaagg tggaaatcaa acgtacggtg gctgcaccat ctgtcttcat cttcccgcca 420
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 480
 cccagagagg ccaaagtaca gtggaagggtg 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> 54
<211> 234
<212> PRT
<213> Homo sapiens

<400> 54

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

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
atggggtcaa ccgccatcct tggcctcctc ctggctgtcc tgcagggagg gcgcgccgag	60
gtgcagctat tggagtctgg gggaggcttg gtacagcctg gggggtcctt gagactctcc	120
tgtgcagcct ctggattcac ctttagcacc tatgtcatga gctgggtccg ccaggctcca	180
gggaaggggc tggagtgggt ctcaagtatt agtggtagtg gtcttggctc atactacgca	240
gactccgtga agggccggtt caccatctcc agagacaatt ccaagaacac gctgtatctg	300
caaatgaaca gcctgagagc cgaggacacg gccgtatatatt actgtgcgaa agaggccccat	360
cggggggccct ttgactactg gggccaggga accctgggtca ccgtctcctc agctagcacc	420
aagggccccat cggtcttccc cctggcgccc tgctccagga gcacctccga gagcacagcg	480
gccctgggct gcctgggtcaa ggactacttc cccgaaccgg tgacgggtgtc gtggaactca	540
ggcgctctga ccagcggcgt gcacaccttc ccagctgtcc tacagtcctc aggactctac	600
tccctcagca gcgtgggtgac cgtgccctcc agcaacttcg gcaccagac ctacacctgc	660

aacgtagatc acaagcccag caacaccaag gtggacaaga cagttgagcg caaatgttgt	720
gtcgagtgcc caccgtgccc agcaccacct gtggcaggac cgtcagtctt cctcttcccc	780
ccaaaaccca aggacaccct catgatctcc cggacccctg aggtcacgtg cgtgggtggtg	840
gacgtgagcc acgaagaccc cgaggtccag ttcaactggt acgtggacgg cgtggaggtg	900
cataatgcca agacaaaagcc 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
tgctccgtga tgcatgaggc tctgcacaac cactacacgc agaagagcct ctccctgtct	1380
ccgggtaaa	1389

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

<400> 56

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
			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

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

<400> 57
atgaggctcc ttgctcagct tctggggctg ctaatgctct gggcccctgg atccagtggg 60
gatattgtga tgaccagac tccactctcc tcacctgtca cccttggaca gccggcctcc 120
atctcctgca ggtctagtca aagcctcgta cacagtgatg gaaacaccta cttgagttgg 180
cttcagcaga ggccaggcca gcctccaaga ctctaattt 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 cgctgcgaa 660
gtcaccatc agggcctgag ctgcccgtc 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
 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

<400> 59
atggagtttg ggctgagctg ggttttcctc gttgctcttt taagaggtgt ccagtgtcag 60
gtgcagctgg tggagtctgg gggaggcgtg gtccagcctg ggagggtccct gagactctcc 120
tgtgcagcgt ctggattcac cttcagtttc tatggcatgc actgggtccg ccaggctcca 180
ggcaaggggc tggagtgggt ggcagttata tggatatgatg gaagtaataa atactatgca 240
gactccgtga agggccgatt caccatctcc agagacaatt ccaagaacac gctgtatctg 300
caaatgaaca gcctgagagc cgaggacacg gctgtgtatt actgtgagag aggggggttat 360
gattacgttt ggggggagtta tcgccgtaac tccgactttg actactgggg ccagggaacc 420
ctggtcaccg tctctagtgc ctccaccaag ggcccatcgg tcttccccct ggcgccctgc 480
tccaggagca cctccgagag cacagcggcc ctgggctgcc tggtaagga ctacttcccc 540
gaaccgggtga cgggtgtcgtg gaactcaggc gctctgacca gcggcgtgca caccttccca 600
gctgtcctac agtcctcagg actctactcc ctcagcagcg tggtgaccgt gccctccagc 660
aacttcggca cccagaccta cacctgcaac gtagatcaca agcccagcaa caccaagggtg 720
gacaagacag ttgagcgcaa atgttgtgtc gagggtccac cgtgcccagc accacctgtg 780
gcaggaccgt cagtcttcct cttcccccca aaacccaagg acaccctcat gatctcccgg 840
acccctgagg tcacgtgcgt ggtgggtggac gtgagccacg aagaccccga ggtccagttc 900
aactggtacg tggacggcgt ggagggtgcat aatgccaaga caaagccacg ggaggagcag 960
ttcaacagca cgttccgtgt ggtcagcgtc ctcaccgttg tgcaccagga ctggctgaac 1020
ggcaaggagt acaagtgcaa 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 ctcttcttc ctctacagca agctcaccgt ggacaagagc 1320

agggtggcagc aggggaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac 1380

tacacgcaga agagcctctc cctgtctccg ggtaaaa 1416

<210> 60

<211> 472

<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		
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

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
atggaagccc cagctcagct tctcttcctc ctgctactct ggctcccaga taccactgga 60
gaaatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 120
ctctcctgca gggccagtca gagtgttgac agcaacttag cctggtagcg gcagaaacct 180
ggccaggctc ccaggctcct catctatggg gcatccacca gggccactgg tatcccagcc 240
aggttcagtg gcagtgggtc tgggactgag ttactctca ccatcagcag cctgcagtct 300
gaagattttg cagtttatta ctgtcagcag tatattaact ggcctccgat caccttcggc 360

caagggacac gactggagat taaacgaact gtggctgcac catctgtctt catcttccccg	420
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc	480
tatcccagag aggccaaagt acagtggaag gtggataacg ccctccaatc gggtaactcc	540
caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcacctg	600
acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt cacccatcag	660
ggcctgagct cgcccgtcac aaagagcttc aacagggggag agtgt	705

<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
 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 gtccctcacc 120
 tgcactgtct ctggtggctc 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 tagatcacao gccagcaac accaaggtgg acaagacagt tgagcgcaaa	720
tgttgtgtcg agtgcccacc gtgcccagca ccacctgtgg caggaccgtc agtcttcctc	780
ttcccccaa aaccaagga caccctcatg atctcccgga cccctgaggt cacgtgcgtg	840
gtggtggacg tgagccacga agaccccgag gtccagttca actggtacgt ggacggcgtg	900
gaggtgcata atgccaagac aaagccacgg gaggagcagt tcaacagcac gttccgtgtg	960
gtcagcgtcc tcaccgttgt gcaccaggac tggctgaacg gcaaggagta caagtgcaag	1020
gtctccaaca aaggcctccc agccccatc gagaaaacca tctcaaaac 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

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
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
 tggTaccagc agaaaccagg acagcctcct aagctgctca tttactgggc 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 ggaagggtgga taacgccctc 540
 caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc 600
 ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaaagt 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

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 ggctgagggtg aagaagcctg gggcctcagt gaaggctctcc 120
 tgcaaggctt ctggatacac cttcaccggc tactatatac actgggtgcg acaggcccct 180
 ggacaagggc ttgagtggat gggatggatc aaccctaaca gtggtggcac aaactctgca 240
 cagaagtttc ggggcagggt caccatgacc agggacacgt ccatcagcac agcctacatg 300
 gagctgagca ggctgagatc tgacgacacg gccgtgtatt actgtgcgcg agagggtgga 360
 tacagctatg gttactttga ctactggggc cagggaaccc tggtcaccgt ctctcagct 420
 agcaccaagg gcccacggt 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 accaagggtgg acaagacagt tgagcgcaaa 720
 tgttgtgtcg agtgcccacc gtgcccagca ccacctgtgg caggaccgtc agtcttcctc 780
 ttccccccaa aacccaagga caccctcatg atctcccgga cccctgagggt cacgtgcgtg 840
 gtggtggacg tgagccacga agaccccag gtccagttca actggtacgt ggacggcgtg 900
 gaggtgcata atgccaagac aaagccacgg gaggagcagt tcaacagcac gttccgtgtg 960

gtcagcgtcc tcaccgttgt gcaccaggac tggctgaacg gcaaggagta caagtgcaag 1020
 gtctccaaca aaggcctccc agcccccatc gagaaaaacca tctccaaaac caaagggcag 1080
 ccccgagaac cacaggtgta caccctgccc ccatcccggg aggagatgac caagaaccag 1140
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 agcaatgggc agccggagaa caactacaag accacacctc ccatgctgga ctccgacggc 1260
 tccttcttcc tctacagcaa gctcaccgtg gacaagagca ggtggcagca ggggaacgtc 1320
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 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
 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
 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

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

<400> 69
atggacatga ggggtccccgc tcagctcctg ggggtcctgc tgctctgggt cccaggtgcc 60
aggtgtgaca tccagatgac ccagtctcca tcctccctgt ctgcatctgt aggagacaga 120
gtcaccatca cttgccgggc aagtcagggc attagaaatg atttaggctg gtatcagcag 180
aaaccaggga aagcccctaa gcgcctgac tatgctgcat ccagtttgca aagtggggtc 240
ccatcaaggt tcagcggcag tggatctggg acagaattca ctctcacaat cagcagtgtg 300
cagcctgaag attttgtaac ttattactgt ctacagcata atagtaaccc 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 ctacgagaaa 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

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				
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
 atggagtttg ggctgagctg ggttttcctc gttgctcttt taagaggtgt ccagtgtcag

gtgcagctgg tggagtctgg gggaggcgtg gtccagcctg ggaggtcctt 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 actgtgcgag agaaaaagat	360
cattacgaca ttttgactgg ttataactac tactacggtc tggacgtctg gggccaaggg	420
accacggtca cgtctcctc agcctccacc aagggcccat cggctcttccc cctggcgccc	480
tgctccagga gcacctccga gagcacagcg gccctgggct gcctgggtcaa ggactacttc	540
cccgaaccgg tgacgggtgc gtggaactca ggcgctctga ccagcggcgt gcacaccttc	600
ccagctgtcc tacagtctc aggactctac tccctcagca gcgtgggtgac cgtgccctcc	660
agcaacttcg gcaccagac ctacacctgc aacgtagatc acaagcccag caacaccaag	720
gtggacaaga cagttgagcg caaatgttgt gtcgagtgcc caccgtgccc agcaccacct	780
gtggcaggac cgtcagtctt cctcttcccc ccaaaaccca aggacaccct catgatctcc	840
cggacccctg aggtcacgtg cgtgggtgggtg gacgtgagcc acgaagaccc cgagggtccag	900
ttcaactgggt acgtggacgg cgtggagggtg cataatgcc aagacaaagcc acgggaggag	960
cagttcaaca gcacgttccg tgtggtcagc gtcctcaccg ttgtgcacca ggactggctg	1020
aacggcaagg agtacaagtg caaggctctc aacaaaggcc tcccagcccc catcgagaaa	1080
accatctcca aaaccaaagg gcagccccga gaaccacagg tgtacacctt gccccatcc	1140
cgggaggaga tgaccaagaa ccaggtcagc ctgacctgcc tggtaaaagg cttctacccc	1200
agcgacatcg ccgtggagtg ggagagcaat gggcagccgg agaacaacta caagaccaca	1260
cctcccatgc tggactccga cggctccttc ttcctctaca gcaagctcac cgtggacaag	1320
agcagggtggc 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
145 150 155 160

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

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

180

185

190

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

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

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

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

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

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

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

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

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

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

Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln
 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
 atggaaaccc cggcgcagct gctgtttctg ctgctgctgt ggctgccgga taccaccggc 60
 gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 120
 ctctcctgca gggccagtca gtatattagc aacacctatt tagcctgggt ccagcagaaa 180
 cctggccagg ctcccaggct cctcatctat ggtgcagcca ccagggccac tggcatccca 240
 gacaggttca gtggcagtgg gtctgggaca gacttcactt tcaccatcag cagactggag 300
 cctgaagatt ttgcagtgta ttactgtcag cagtatggta gctcaccgtg gacgttcggc 360
 caagggacca cgggtggaaat caaacgtacg gtggctgcac catctgtctt catcttcccg 420
 ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc 480
 tatcccagag aggccaaaagt acagtggaag gtggataacg ccctccaatc gggttaactcc 540
 caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccttg 600

acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt cacccatcag 660

ggcctgagct cgcccgtcac aaagagcttc aacagggggag agtgt 705

<210> 74

<211> 235

<212> PRT

<213> Homo sapiens

<400> 74

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

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

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<210> 75
<211> 1389
<212> DNA
<213> Homo sapiens
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<400>	75
atggattgga cctggcgtat tctgttttctg gtggcggcgg cgaccggcgc gcatagccag	60
gtgcagttagg tgcagtctgg ggctgagggtg aagaagcctg gggcctcagt gaaggctctcc	120
tgcaaggctt ctggatacac cttcaccggc tactatatgc actgggtgcg acaggcccct	180
ggacaagggc ttgagtggat gggatggatc aaccctaaca gtggtggcac aaactatgca	240
cagaggtttc ggggcagggt caccatgacc agggacacgt ccatacgcac agcctacatg	300
gaactgagca ggctgagatc tgacgacacg gccgtgtatt actgtgcgag agccccgtat	360
gactggacct ttgactactg gggccaggga accctgggtca ccgtctcctc agctagcacc	420
aagggcccat cggctcttccc cctggcgccc tgctccagga gcacctcca gagcacagcg	480
gccctgggct gcctgggtcaa ggactacttc cccgaaccgg tgacgggtgtc gtggaactca	540
ggcgctctga ccagcggcgt gcacaccttc ccagctgtcc tacagtcctc aggactctac	600
tccctcagca gcgtgggtgac cgtgcccttc agcaacttcg gcaccagac ctacacctgc	660

aacgtagatc acaagcccag caacaccaag gtggacaaga cagttgagcg caaatgttgt	720
gtcgagtgcc caccgtgccc agcaccacct gtggcaggac cgtcagtctt cctcttcccc	780
ccaaaaccca aggacaccct catgatctcc cggacccctg aggtcacgtg cgtgggtggtg	840
gacgtgagcc acgaagaccc cgaggtccag ttcaactggt acgtggacgg cgtggagggtg	900
cataatgcca agacaaaagcc 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
tgctccgtga tgcatgaggc tctgcacaac cactacacgc agaagagcct ctccctgtct	1380
ccgggtaaa	1389

<210> 76
 <211> 463
 <212> PRT
 <213> Homo sapiens

<400> 76

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
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
 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

<400> 77
atggacatga ggggtgcccgc tcagctcctg gggctcctgc tgctgtggct gagaggtgcg 60
cgctgtgaca tccagatgac ccagtctcca tcttccgtgt ctgcatctgt aggagacaga 120
gtcaccatca cttgtcgggc gagtcagggt attagcaact ggtagcctg gtatcagcag 180
aaaccaggga cagcccctaa actcctgatc tatgctgcat ccagtttgca aagtggggtc 240
ccatcaaggt tcagcggcag tggatctggg acagatttca ctctcaccat cagcagcctg 300
cagcctgaag attttgcaac ttactattgt caacaggcta acagtttccc attcactttc 360
ggccctggga ccaaagtgga tatcaaactg acgggtggctg caccatctgt cttcatcttc 420
ccgccatctg 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 gctcgcccgt cacaaagagc ttcaacaggg gagagtgt 708

<210> 78
<211> 236
<212> PRT
<213> Homo sapiens

<400> 78

Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly 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

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

atggacatga ggggtgcccgc tcagctcctg gggctcctgc tgctgtggct gagaggtgcg	60
cgctgtcagg tgcagttggt gcagtctggg actgaggtga agaagcctgg ggcctcaatg	120
aaggtttcct gcaaggcatc tggatacacc ttcaccagct attatatgca ctgggtgcga	180
caggccccctg gacaagggct tgagtggatg ggaataatca accctagtgg tgatagcaca	240
agctacgcac agaagttcca gggcagagtc accatgacca gggacacgtc cacgaacaca	300
gtctacatgg agctgagcag cctgagatct gaggacacgg ccatgtatta ctgtgcgaga	360
gatgtagagg ttcgggggaat ttctcacttt gactactggg gccagggaac cctgggtcacc	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
accagacct acacctgcaa cgtagatcac aagcccagca acaccaaggt ggacaagaca	720
gttgagcgca aatgttgtgt cgagtgccca ccgtgcccag caccacctgt ggcaggaccg	780
tcagtcttcc tcttcccccc aaaacccaag gacaccctca tgatctcccg gacccctgag	840
gtcacgtgcg tgggtggtgga cgtgagccac gaagaccccg aggtccagtt caactggtac	900
gtggacggcg tggaggtgca taatgccaag acaaagccac gggaggagca gttcaacagc	960
acgttccgtg tggtcagcgt cctcaccgtt gtgcaccagg actggctgaa cggcaaggag	1020
tacaagtgca aggtctccaa caaaggcctc ccagccccca tcgagaaaaac catctccaaa	1080
accaaagggc agccccgaga accacaggtg tacaccctgc ccccatcccc ggaggagatg	1140
accaagaacc aggtcagcct gacctgcctg gtcaaaggct tctaccccag cgacatcgcc	1200
gtggagtggg agagcaatgg gcagccggag aacaactaca agaccacacc tcccattgctg	1260
gactccgacg gctccttctt cctctacagc aagctcaccg tggacaagag caggtggcag	1320
cagggggaacg tcttctcatg ctccgtgatg catgaggctc tgcacaacca ctacacgcag	1380

aagagcctct ccctgtctcc gggtaaa

1407

<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
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 80

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
145 150 155 160

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
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
 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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agctgtaagt ccagtcaaag tgttttatac agtgcaaadc acaagaacta cttggcctgg 180

taccagcaga aaccagggaa agcacctaaa ctgctgatct actgggcatc cactagggaa 240

tctgggtgcc cttcgcgatt ctctggcagc ggatctggga cagattttac tttcaccatc 300

agctctcttc aaccagaaga cattgcaaca tattattgtc accaatacct ctctcgtgg 360

acgttcggtg gagggaccaa ggtgcagatc aaacgaactg tggctgcacc atctgtcttc 420

atcttcccg	catctgatga	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

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

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
 atgggatgga gctgtatcat cctcttcttg gtagcaacag ctacaggtgt ccactcccag 60
 gtccagctgg tccaatcagg ggctgaagtc aagaaacctg ggcatcaggt gaaggtctcc 120
 tgcaaggctt ctggctacac ctttactagc tactggctgc actgggtcag gcaggcacct 180
 ggacagggtc tggaatggat tggatacatt aatcctagga atgattatac tgagtacaat 240
 cagaacttca aggacaaggc cacaataact gcagacgaat ccaccaatac agcctacatg 300
 gagctgagca gcctgaggtc tgaggacacg gcatttttatt tttgtgcaag aagggatatt 360
 actacgttct actggggcca aggcaccacg gtcaccgtct cctcagcctc caccaagggc 420
 ccatcgttct tccccctggc accctcctcc aagagcacct ctggggggcac agcggccctg 480

ggctgcctgg tcaaggacta cttccccgaa ccggtgacgg tgtcgtggaa ctcaggcgcc 540
 ctgaccagcg gcgtgcacac cttcccggct gtcctacagt cctcaggact ctactccctc 600
 agcagcgtgg tgaccgtgcc ctccagcagc ttgggcaccc agacctacat ctgcaacgtg 660
 aatcacaagc ccagcaacac caaggtggac aagagagttg agcccaaadc ttgtgacaaa 720
 actcacacat gcccaccgtg cccagcacct gaactcctgg ggggaccgtc agtcttcctc 780
 ttccccccaa aacccaagga caccctcatg atctcccgga cccctgaggt cacatgcgtg 840
 gtgggtggacg tgagccacga agaccctgag gtcaagttca actggtacgt ggacggcgtg 900
 gaggtgcata atgccaagac aaagccgcgg gaggagcagt acaacagcac gtaccgtgtg 960
 gtcagcgtcc tcaccgtcct gcaccaggac tggctgaatg gcaaggagta caagtgcaag 1020
 gtctccaaca aagccctccc agcccccatc gagaaaacca tctccaaagc caaagggcag 1080
 ccccgagaac cacaggtgta caccctgccc ccatcccggg aggagatgac caagaaccag 1140
 gtcagcctga cctgcctggc caaaggcttc tatcccagcg acatcgccgt ggagtgggag 1200
 agcaatgggc agccggagaa caactacaag accacgcctc ccgtgctgga ctccgacggc 1260
 tccttcttcc tctatagcaa gtcaccgtg 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
 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
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
 atggaaaccc cagctcagct tctcttcctc ctgctactct ggctcccaga taccaccgga 60
 gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 120
 ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa 180
 cctggccagg ctcccaggct cctcatatat ggtgcatcca gcagggccac tggcatccca 240
 gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 300
 cctgaagatt ttgcagtgta ttactgtcag cggctctgggtg gctcatcatt cactttcggc 360
 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 cagcacctg 600
 acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt cacccatcag 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 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
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
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
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 agcagagggtg aaaaagcccg gggagtctct gaagatctcc 120
 tgtaaggggtt ctggatacaa ctttaccagc tactggatcg gctgggtgcg ccagatgccc 180
 gggaaaggcc tggagttgat ggggatcatc tatcctgggtg actctgatac cagatacagc 240
 ccgtccttcc aaggccaggt caccatctca gccgacaagt ccatcagcac cgcctacctg 300
 cagtggagca gcctgaaggc ctcggaacacc gccatgtatt actgtgggtc ggggagctac 360
 ttttacttcg atctctgggg ccgtggcacc ctggtcaccg tctctagtgc ctccaccaag 420
 ggcccatcgg tcttccccct ggcaccctcc tccaagagca cctctggggg cacagcggcc 480
 ctgggctgcc tgggtcaagga ctacttcccc gaaccgggtga cggtgtcgtg gaactcaggc 540
 gccctgacca gcggcgtgca caccttcccc gctgtcctac agtcctcagg actctactcc 600
 ctcagcagcg tggtgaccgt gccctccagc agcttgggca cccagaccta catctgcaac 660
 gtgaatcaca agcccagcaa caccaagggtg gacaagaaaag ttgagcccaa atcttgtgac 720
 aaaactcaca catgcccacc gtgcccagca cctgaactcc tgggggggacc gtcagtcttc 780
 ctcttcccc caaaaccaa ggacaccctc atgatctccc ggaccctga ggtcacatgc 840
 gtggtgggtg acgtgagcca cgaagaccct gaggtcaagt tcaactggta cgtggacggc 900
 gtggagggtg ataatgcaa gacaaagccg cgggaggagc agtacaacag cacgtaccgt 960
 gtggtcagcg tcctcaccgt cctgcaccag gactggctga atggcaagga gtacaagtgc 1020
 aaggctctca acaaagccct cccagcccc atcgagaaaa ccatctcaa agccaaaggg 1080

cagccccgag aaccacaggt gtacaccctg ccccatcccc gggatgagct gaccaagaac	1140
caggtcagcc tgacctgcct ggtcaaaggc ttctatccca gcgacatcgc cgtggagtgg	1200
gagagcaatg ggcagccgga gaacaactac aagaccacgc ctcccgtgct ggactccgac	1260
ggctccttct tcctctatag caagctcacc gtggacaaga gcaggtggca gcaggggaac	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
		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
 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
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 ctcctgcata gtcattggata caactatttg	180
gatttggtacc tgcagaagcc agggcagtcct ccacagctcc tgatctatctt gggttctaata	240
cgggcctccg gggtccctga cagggttcagt ggcatgggat caggcacaga ttttacactg	300
aaaatcagca gaggggaggc tgaggatgtt ggggtttatt actgcatgca aggtacacac	360
tggcctccga cttttggcca ggggaccaag ctggagatca aacgtacggg ggctgcacca	420
tctgtcttca tcttcccgcc atctgatgag cagttgaaat ctggaactgc ctctgtttgtg	480
tgcttgctga ataacttcta tcccagagag gccaaagtac agtgggaagg ggataacgcc	540
ctccaatcgg gtaactccca ggagagtgtc acagagcagg acagcaagga cagcacctac	600
agcctcagca gcacctgac gctgagcaaa gcagactacg agaaacacaa agtctacgcc	660
tgcgaagtca cccatcaggg cctgagctcg cccgtcacia 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
		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

<210> 91
<211> 1410
<212> DNA
<213> Homo sapiens

<400> 91

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cgctgtgagg tccagctggt gcagtctggg 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 gttgactggt tatggctact ggggccaggg aaccctggtc	420
accgtctcta gtgcctccac caagggccca tcggtcttcc ccctggcgcc ctgctccagg	480
agcacctccg agagcacagc ggccctgggc tgccctggta aggactactt ccccgaaaccg	540
gtgacgggtg cgtggaactc aggcgctctg accagcggcg tgcacacctt cccagctgtc	600
ctacagtcct caggactcta ctccctcagc agcgtggtga ccgtgccctc cagcaacttc	660
ggcaccaga cctacacctg caacgtagat cacaagccca gcaacaccaa ggtggacaag	720
acagttgagc gcaaagtgtg tgctcagtgcc ccaccgtgcc cagcaccacc tgtggcagga	780
ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggaccct	840
gaggtcacgt gcgtgggtgg ggacgtgagc cacgaagacc ccgaggtcca gttcaactgg	900
tacgtggacg gcgtggagggt gcataatgcc aagacaaaagc cacgggagga gcagttcaac	960
agcacgttcc gtgtggtcag cgtcctcacc gttgtgcacc aggactggct gaacggcaag	1020
gagtacaagt gcaaggcttc caacaaaggc ctcccagccc ccatcgagaa aaccatctcc	1080
aaaacaaaag ggcagccccg agaaccacag gtgtacaccc tgccccatc ccgggaggag	1140
atgaccaaga accaggctcag cctgacctgc ctggtcaaaag gcttctaccc 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> 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

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

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 gggatttagt agaagctact tagcctggta ccagcagaaa 180
 cctggccagg ctcccagcct cctcatctat ggtgcatcca gcagggccac tggcatccca 240
 gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 300
 cctgaagatt ttgcagtgta ttactgtcaa caatttggtg gttcaccgtg gacgttcggc 360
 caagggacca aggtggaaat caaacgaact gtggctgcac catctgtctt catcttcccg 420
 ccatctgatg agcagttgaa atctgggaact gctagcgttg tgtgcctgct gaataacttc 480
 tatcccagag aggccaaagt acagtgggaag gtggataacg ccctccaatc gggtactcc 540

caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg	600
acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt cacccatcag	660
ggcctgagct cgcccgtcac aaagagcttc aacagggggag 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
 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
 atgaagcatc tgtggttctt cctcctgctg gtggcagctc ccagatgggt cctgtcccag 60
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 tgcactgtct ctggtggctc catcagcagt ggtgattact tctggagctg gatccgccag 180
 ctcccaggga agggcctgga gtggattggg cacatccata acagtgggac cacctactac 240
 aatccgtccc tcaagagtcg agttaccata tcagtagaca cgtctaagaa gcagttctcc 300
 ctgaggctga gttctgtgac tgccgcggac acggccgtat attactgtgc gagagatcga 360
 gggggtgact actactatgg tatggacgtc tggggccaag ggaccacggt caccgtctcc 420
 tcagcctcca ccaaggggcc atccgtcttc cccctggcac cctcctccaa gagcacctct 480
 gggggcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacggtg 540
 tcgtggaact caggcgcctt gaccagcggc gtgcacacct tcccgctgt cctacagtcc 600

tcaggactct actccctcag cagcgtggtg accgtgccct ccagcagctt gggcacccag	660
acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gagagttgag	720
cccaaactct gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg	780
ggaccgtcag tcttcctctt cccccaaaaa cccaaggaca ccctcatgat ctcccgacc	840
cctgagggtca catgcgtggt ggtggacgtg agccacgaag accctgaggt caagttcaac	900
tggtacgtgg acggcgtgga ggtgcataat gccaagacaa agccgcggga ggagcagtac	960
aacagcacgt accgtgtggt cagcgtcctc accgtcctgc accaggactg gctgaatggc	1020
aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc	1080
tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgagg	1140
gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac	1200
atgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc	1260
gtgctggact ccgacggctc cttcttcctc tatagcaagc tcaccgtgga caagagcagg	1320
tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggctctgca caaccactac	1380
acgcagaaga gcctctccct gtctccgggt aaa	1413

<210> 96
 <211> 471
 <212> PRT
 <213> Homo sapiens

<400> 96

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

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

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

<213> Homo sapiens

<400> 97

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agatgtgaca tccagatgac ccagtctcca tcctccctgt ctgcatctgt aggagacaga 120
gtcaccatca cttgccaggc gagtcaggac atcagcaact atttaaattg gtatcagcag 180
aaaccaggga aagcccctaa actcctgatc tacgatgcat ccaatttgga aacaggggtc 240
ccatcaaggt tcagtggaag 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 aagggtggata acgccctcca atcgggtaac 540
tcccaggaga gtgtcacaga gcaggacagc aaggacagca cctacagcct cagcagcacc 600
ctgacgctga gcaaagcaga ctacgagaaa cacaaagtct acgcctgcga agtcacccat 660
cagggcctga gctcgcccggt cacaaagagc ttcaacaggg gagagtgt 708

<210> 98

<211> 236

<212> PRT

<213> Homo sapiens

<400> 98

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

Ala Pro Lys Leu Leu Ile Tyr Asp Ala Ser Asn Leu Glu Thr 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 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 gtccctcacc 120
 tgcactgtct ctggtggctc cgtcagcagt ggtgattact actggacctg gatccggcag 180
 tccccaggga agggactgga gtggattgga cacatctatt acagtgggaa caccaattat 240
 aaccctccc tcaagagtcg actcaccata tcaattgaca cgtccaagac tcagttctcc 300
 ctgaagctga gttctgtgac cgctgcggac acggccatth attactgtgt gcgagatcga 360
 gtgactgggtg cttttgatat ctggggccaa gggacaatgg tcaccgtctc ttcagctagc 420
 accaagggcc catcggtctt ccccctggcg ccctgctcca ggagcacctc cgagagcaca 480
 gcggccctgg gctgcctggg caaggactac ttccccgaac cggtgacggg gtcgtggaac 540
 tcaggcgctc tgaccagcgg cgtgcacacc ttcccagctg tcctacagtc ctcaggactc 600
 tactccctca gcagcgtggg gaccgtgccc tccagcaact tcggcaccca gacctacacc 660
 tgcaacgtag atcacaagcc cagcaacacc aagggtggaca agacagttga gcgcaaagt 720
 tgtgtcgagt gccaccgtg cccagcacca cctgtggcag gaccgtcagt cttcctcttc 780
 cccccaaaac ccaaggacac cctcatgatc tcccggaccc ctgaggtcac gtgcgtgggtg 840
 gtggacgtga gccacgaaga ccccgaggct cagttcaact ggtacgtgga cggcgtggag 900
 gtgcataatg ccaagacaaa gccacgggag gagcagttca acagcacgtt ccgtgtgggtc 960
 agcgtcctca ccgttgtgca ccaggactgg ctgaacggca aggagtacaa gtgcaagggtc 1020
 tccaacaaag gcctcccagc ccccatcgag aaaaccatct ccaaaaccaa agggcagccc 1080
 cgagaaccac aggtgtacac cctgccccca tcccgggagg agatgaccaa gaaccagggtc 1140
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aatgggcagc cggagaacaa ctacaagacc acacctccca tgctggactc cgacggctcc	1260
ttcttcctct acagcaagct caccgtggac aagagcaggt ggcagcaggg gaacgtcttc	1320
tcatgctccg tgatgcatga ggctctgcac aaccactaca cgcagaagag cctctccctg	1380
tctccgggta aa	1392

<210> 100
 <211> 464
 <212> PRT
 <213> Homo sapiens

<400> 100

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	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

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

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
atggaaaccc cagcgcagct tctcttcctc ctgctactct ggctcccaga taccgctagc 60
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 120
ctctcctgca gggccagtca gagtgttagc aacagctact tagcctggta ccagcagaaa 180
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcaggggccc tggcatccca 240
gacaggttca gtggcagtgg gtctgggaca gatttcactc tcaccatcag cagactggag 300
cctgaagatt ttgcagtgtg ttactgtcag cagtatgatc actcagcagg gtggacgttc 360

ggccaaggga ccaaggtgga gatcaaacgt 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> 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
 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 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 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
 145 150 155 160

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> 103
 <211> 1680
 <212> DNA
 <213> Homo sapiens

<400> 103
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 gttcagctgg tggagtctgg gggaggcttg gtacagcctg ggggggtccct gagactctcc 120
 tgtgcagcct ctggattcac cttcagtaga aatgctatgt tctgggttcg ccaggctcca 180
 ggaaaagggtc tggagtgggt atcagggtatt ggtactgggtg gtgccacaag ctatgcagac 240
 tccgtgaagg gccgattcac catctccaga gacaatgccca agaactcctt gtatcttcaa 300
 atgaacagcc tgagagccga ggacacggct gtgtattact gtgcaagagg gaggtactac 360
 ttcccgtgggt gggggccaggg aaccctgggtc accgtctcct cagcctccac caagggccca 420

tcggtcttcc ccctggcgcc ctgctccagg agcacctccg agagcacagc ggccctgggc	480
tgcctggtca aggactactt ccccgaaaccg gtgacgggtgt cgtggaactc aggcgctctg	540
accagcggcg tgcacacctt cccggctgtc ctacagtcct caggactcta ctccctcagc	600
agcgtggtga ccgtgccctc cagcaacttc ggcacccaga cctacacctg caacgtagat	660
cacaagccca gcaacaccaa ggtggacaag acagttggtg agaggccagc tcaggaggagg	720
agggtgtctg ctggaagcca ggctcagccc tcctgcctgg acgcaccccg gctgtgcagc	780
cccagcccag ggcagcaagg caggccccat ctgtctcctc acccgagggc ctctgccgc	840
cccactcatg ctcagggaga gggctttctg gctttttcca ccaggctcca ggcaggcaca	900
ggctgggtgc ccctacccca ggcccttcac acacaggggc aggtgcttgg ctcagacctg	960
ccaaaagcca tatccgggag gacctgccc ctgaccgagc gcaaagtgtg tgtcgagtgc	1020
ccaccgtgcc cagcaccacc tgtggcagga ccgtcagtct tcctcttccc cccaaaaccc	1080
aaggacaccc tcatgatctc ccggacccct gaggtcacgt gcgtgggtgg ggacgtgagc	1140
cacgaagacc ccgagggtcca gttcaactgg tacgtggacg gcgtggagggt gcataatgcc	1200
aagacaaagc cacgggagga gcagttcaac agcacgttcc gtgtgggtcag cgtcctcacc	1260
gtcgtgcacc aggactggct gaacggcaag gagtacaagt gcaagggtctc caacaaaggc	1320
ctcccagccc ccatcgagaa aaccatctcc aaaaccaaag ggcagccccg agaaccacag	1380
gtgtacaccc tgcccccatc ccgggaggag atgaccaaga accagggtcag cctgacctgc	1440
ctggtcaaag gcttctaccc cagcgacatc gccgtggagt gggagagcaa tgggcagccg	1500
gagaacaact acaagaccac acctcccatg ctggactccg acggctcctt cttcctctac	1560
agcaagctca ccgtggacaa gagcagggtg cagcagggga acgtcttctc atgctccgtg	1620
atgcatgagg ctctgcacaa ccactacacg cagaagagcc tctccctgtc tccgggtaaa	1680

<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

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

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 cagcgcagct tctcttcctc ctgctactct ggctcccaga taccaccgga 60
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 120
ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa 180
cctggccagg ctcccaggct cctcatctat ggtgcatccc gcagggccac tggcatccca 240
gacagggtca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 300
cctgaagatt ttgcagtgtg ttactgtcag cggatatggta gctcacacac ttttggccag 360
gggaccaagc tggagatcag ccgaactgtg gctgcaccat ctgtcttcat cttcccgcca 420
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 480
cccagagagg ccaaagtaca gtggaagggtg 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 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
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 agcagagggtg aaaaagcccc gggagtctct gaagatctcc 120
 tgtaaggttt ctggatactt ctttaccacc tactggatcg gctgggtgcg ccagatgccc 180
 gggaaaggcc tggagtatat ggggatcatc tatcctgggtg actctgatac cagatacagc 240
 ccgtccttcc aaggccaggt caccatctca gccgacaagt ccatcagcac cgcctacctg 300
 cagtggagca gcctgaaggc ctcggacacc gccatgtatt actgtgagag agggggtaac 360
 tggaactgct ttgactactg gggccaggga accctgggtc ccgtctcctc agcctccacc 420
 aaggggccat cggctcttccc cctggcacc cctccaaga 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 gagttgagcc caaatcttgt 720
 gacaaaactc acacatgccc accgtgccc gcacctgaac tcctgggggg accgtcagtc 780
 ttctcttccc ccccaaaacc caaggacacc ctcatgatct cccggacccc tgaggtcaca 840
 tgcgtgggtg tggacgtgag ccacgaagac cctgagggtc agttcaactg gtacgtggac 900

```

ggcgtggagg tgcataatgc caagacaaaag ccgcgggagg agcagtacaa cagcacgtac      960
cgtgtgggtca gcgtcctcac cgtcctgcac caggactggc tgaatggcaa ggagtacaag      1020
tgcaaggtctt 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
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```

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

```

```

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

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

Pro Gly Lys
 465

<210> 109

<211> 723

<212> DNA

<213> Homo sapiens

<400> 109

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atggacatga ggggtgcccgc tcagctcctg gggctcctgc tgctgtggct gagagggtgcc      60
agatgtgatg ttgtgatgac tcagtctcca ctctccctgc ccgtcacccc tggagagccg      120
gcctccatct cctgcaggtc tagtcagagc ctctgcata gtaatggata caactatttg      180
gattgggtacc tgcagaagcc agggcagtct ccacagctcc tgatctatatt ggggttctaata      240
cgggcctccg ggggtccctga cagggttcagt ggcagtgatg caggcacaga ttttacactg      300
aaaatcagca ggggtggaggc tgaggatggt ggggttttatt actgcatgca aggtacacac      360
tggcctctga cgttcggcca agggaccaag gtggagatca aacgaactgt ggctgcacca      420
tctgtcttca tcttcccgcc atctgatgag cagttgaaat ctggaactgc ctctgttgtg      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 cccgtcacaa agagcttcaa caggggagag      720
tgt                                              723
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<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

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

Cys

<210> 111
<211> 1413
<212> DNA
<213> Homo sapiens

<400> 111
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agatgtcagg tgcagctgca ggagtcgggc ccaggactgg tgaagccttc ggggaccctg 120
tccctcacct gcgctgtctc tgggtggctcc atcagcagta gtaactgggtg gagttgggtc 180
cgccagcccc cagggaaggg gctggagtgg attggggaaa tctatcatag tgggagcacc 240
aactacaacc cgtccctcaa gagtcgagtc accatatcag tagacaagtc caagaaccag 300
ttctccctga agctgagctc tgtgaccgcc gcggacacgg ccgtgtatta ctgtgcgaga 360
tggaccgggc gtactgatgc ttttgatatc tggggccaag ggacaatggt caccgtctct 420
agtcctcca ccaagggcc atcggctctc cccctggcac cctcctcaa gagcacctct 480
gggggcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacggtg 540
tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggctgt cctacagtcc 600
tcaggactct actccctcag cagcgtgggtg accgtgccct ccagcagctt gggcaccag 660
acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gaaagttgag 720
cccaaactct gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg 780
ggaccgtcag tcttcctctt cccccaaaa cccaaggaca ccctcatgat ctcccggacc 840
cctgagggtca 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 cagggtgtaca ccctgcccc atcccgggat 1140
gagctgacca agaaccaggt cagcctgacc tgcttgggtc aaggcttcta tcccagcgac 1200
atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cacgcctccc 1260
gtgctggact ccgacggctc 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

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	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		
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 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
 atggaagcgc cggcgcagct tctcttcctc ctgctactct ggctcccaga taccactgga 60
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 ctctcctgca gggccagtca gagtgttagc agcaacttag cctgggtcca gcagaaacct 180
 ggccaggctc ccaggcccct catctatgat gcatccacca gggccactgg tgtcccagcc 240
 aggttcagtg gcagtgggtc tgggacagac ttactctca ccatcagcag cctgcagtct 300
 gaagattttg cagtttatta ctgtcagcag tatgataact ggccgctcac tttcggcgga 360

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gggaccaagg tggagatcaa acgtacgggtg gctgcaccat ctgtcttcat cttcccgccca      420
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat      480
cccagagagg ccaaagtaca gtggaagggtg 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 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

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
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 gttcagctgg tgcagtctgg agctgagggtg 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

ccatcgggtct tccccctggc gccctgctcc aggagcacct ccgagagcac agcggccctg	480
ggctgcctgg tcaaggacta cttccccgaa ccggtgacgg tgtcgtggaa ctcaggcgct	540
ctgaccagcg gcgtgcacac cttcccagct gtcctacagt cctcaggact ctactccctc	600
agcagcgtgg tgaccgtgcc ctccagcaac ttcggcaccc agacctacac ctgcaacgta	660
gatcacaagc ccagcaacac caaggtggac aagacagttg agcgcaaatg ttgtgtcgag	720
tgtccaccgt gcccagcacc acctgtggca ggaccgtcag tcttcctctt cccccaaaa	780
cccaaggaca ccctcatgat ctcccggacc cctgagggtca cgtgcgtggg ggtggacgtg	840
agccacgaag accccgaggt ccagttcaac tggtagctgg acggcgtgga ggtgcataat	900
gccaagacaa agccacggga ggagcagttc aacagcacgt tccgtgtggg cagcgtcctc	960
accgttgtgc accaggactg gctgaacggc aaggagtaca agtgcaaggt ctccaacaaa	1020
ggcctcccag ccccatcga gaaaaccatc tcaaaaacca 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
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
145 150 155 160

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 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					240				
Cys	Pro	Pro	Cys	Pro 245	Ala	Pro	Pro	Val	Ala 250	Gly	Pro	Ser	Val	Phe 255	Leu
Phe	Pro	Pro	Lys 260	Pro	Lys	Asp	Thr	Leu 265	Met	Ile	Ser	Arg	Thr 270	Pro	Glu
Val	Thr	Cys 275	Val	Val	Val	Asp	Val 280	Ser	His	Glu	Asp	Pro 285	Glu	Val	Gln
Phe	Asn 290	Trp	Tyr	Val	Asp	Gly 295	Val	Glu	Val	His	Asn 300	Ala	Lys	Thr	Lys
Pro 305	Arg	Glu	Glu	Gln	Phe 310	Asn	Ser	Thr	Phe	Arg 315	Val	Val	Ser	Val	Leu 320
Thr	Val	Val	His	Gln 325	Asp	Trp	Leu	Asn	Gly 330	Lys	Glu	Tyr	Lys	Cys 335	Lys
Val	Ser	Asn	Lys 340	Gly	Leu	Pro	Ala	Pro 345	Ile	Glu	Lys	Thr	Ile 350	Ser	Lys
Thr	Lys	Gly 355	Gln	Pro	Arg	Glu	Pro 360	Gln	Val	Tyr	Thr	Leu 365	Pro	Pro	Ser
Arg	Glu 370	Glu	Met	Thr	Lys	Asn 375	Gln	Val	Ser	Leu	Thr 380	Cys	Leu	Val	Lys
Gly 385	Phe	Tyr	Pro	Ser	Asp 390	Ile	Ala	Val	Glu	Trp 395	Glu	Ser	Asn	Gly	Gln 400
Pro	Glu	Asn	Asn	Tyr 405	Lys	Thr	Thr	Pro	Pro 410	Met	Leu	Asp	Ser	Asp 415	Gly
Ser	Phe	Phe	Leu 420	Tyr	Ser	Lys	Leu	Thr 425	Val	Asp	Lys	Ser	Arg 430	Trp	Gln

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

<400> 117
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 atctcctgca agtctgggtca gagcctcctg catagtgatg gaaagaccta tttgtattgg 180
 tacctgcaga agccaggcca gcctccacag ttcctgatct atgaagtttc caaccggttc 240
 tctagagtgc cagatagggt cagtggcagc gggtcaggga cagatttcac actgagaatc 300
 agccgggtgg aggctgagga tgttggaatt tattactgca tgcaaagtat acagcttccg 360
 tggacgttcg gccaagggaac ccagggtgga atcaaacgaa ctgtggctgc accatctgtc 420
 ttcaccttcc 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 ctgccccgtc 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

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

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tgtgcagcct ctggattcac cttcagtggc tatggcatgc actgggtccg ccaggctcca	180
ggcaaggggc tggagtgggt ggcagttata tcatatgatg gaaatgataa atactatgca	240
gactccgtga agggccgatt caccatctcc agagacaatg ccaagaacac gctgtatctg	300
caaatgaaca gcctgagagc tgaggacacg gctgtgtatt actgtgcgag agagctacgg	360
gtcctctggg gccagggaac cctggtcacc gtctctagtg cctccaccaa gggcccatcg	420
gtcttcccc tggcgccctg ctccaggagc acctccgaga gcacagcggc cctgggctgc	480
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gtgggtgaccg tgccctccag caacttcggc acccagacct acacctgcaa cgtagatcac	660
aagcccagca acaccaaggt ggacaagaca gttgagcgca aatgttgtgt cgagtgccca	720
ccgtgcccag caccacctgt ggcaggaccg tcagtcttcc tcttcccccc aaaaccaag	780
gacaccctca tgatctcccg gaccctgag gtcacgtgcg tgggtggtgga cgtgagccac	840
gaagaccccg aggtccagtt caactggtac gtggacggcg tggagggtgca taatgccaag	900
acaaagccac gggaggagca gttcaacagc acgttccgtg tggtcagcgt cctcaccgtt	960
gtgcaccagg actggctgaa cggcaaggag tacaagtgca aggtctccaa caaaggcctc	1020
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tacaccctgc ccccatcccg 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
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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
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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

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

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
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gtcaccatca cttgccgcgc aagtcaggat attagcagct atttaaattg gtatcagcag 180
aaaccaggga aagcccctaa gtcctgatc tattctactt cccgtttgaa tagtggggtc 240
ccatcacgct tcagtggcag tggctctggg acagatttca ctctcaccat 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
ggcctgagct cgcccgtcac aaagagcttc aacaggggag agtgt	705

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

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

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

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

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> 123
 <211> 1395
 <212> DNA
 <213> Homo sapiens

<400> 123
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 tgcaaggctt ctggttttac cttcaccgac tatattatgc actgggtgcg tcaggcccct 180
 ggtcaagggc ttgagtggat gggctatatc aacccttata atgatgacac cgaatacaac 240
 gagaagttca agggccgtgt cacgattacc gcggacaaat ccacgagcac agcctacatg 300
 gagctgagca gcctgcgctc tgaggacacg gccgtgtatt actgtgctcg ttcgatttat 360
 tactacgatg ccccgtttgc ttactggggc caagggactc tggtcaccgt ctctagtgcc 420

tccaccaagg gcccatcggg cttccccctg gcgccctgct ccaggagcac ctccgagagc	480
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aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtcctcagga	600
ctctactccc tcagcagcgt ggtgaccgtg ccctccagca acttcggcac ccagacctac	660
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tgttgtgtcg agtgcccacc gtgcccagca ccacctgtgg caggaccgtc agtcttcctc	780
ttcccccaa aaccaagga caccctcatg atctcccga cccctgaggt cacgtgcgtg	840
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gaggtgcata atgccaagac aaagccacgg gaggagcagt tcaacagcac gttccgtgtg	960
gtcagcgtcc tcaccgttgt gcaccaggac tggctgaacg gcaaggagta caagtgaag	1020
gtctccaaca aaggcctccc agccccatc gagaaaacca tctccaaaac caaagggcag	1080
ccccgagaac cacagggtga 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> 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
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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

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			
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
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 tgtggggggaa acaaccttgg aagtaaaagt gtgcactggg accagcagaa gccaggccag 180
 gcccctgtgc tggctcgtcta tgatgatagc gaccggccct catggatccc tgagcgattc 240
 tctggctcca actctgggaa cacggccacc ctgaccatca gcagggggcga agccggggat 300
 gaggccgact attactgtca ggtgtgggat agtagtagtg atcatgtggt attcggcgga 360
 gggaccaagc tgaccgtcct aggccaaccg aaagcggcgc cctcgggtcac tctgttcccg 420
 ccctcctctg aggagcttca agccaacaag gccacactgg tgtgtctcat aagtgacttc 480
 taccggggag ccgtgacagt ggcctggaag gcagatagca gcccgtcaa ggcgggagtg 540
 gagaccacca caccctccaa acaaagcaac aacaagtacg cggccagcag ctatctgagc 600
 ctgacgcctg agcagtggaa gtcccacaga agctacagct gccagggtcac 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
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
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 atgcagctgg tggagtctgg gggaggcgtg gtccagcctg ggaggtcctt gagactctcc 120
 tgtgcagcgt ctggattcac cttcagaacc tatggcatgc actgggtccg ccaggctcca 180
 ggcaagggac tggagtgggt ggcagttata tggatatgat gaagtaataa acactatgca 240
 gactccgtga agggccgatt caccatcacc agagacaatt ccaagaacac tctgaatctg 300
 caaatgaaca gcctgagagc cgaggacacg gctgtgtatt actgtgcgag agccccctcag 360
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 tcagctagca ccaagggccc atcggctctt cccctggcgc cctgctccag gagcacctcc 480
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 cgtgtgggtca gcgtcctcac cgttgtgcac caggactggc tgaacggcaa ggagtacaag 1020

tgcaaggctct ccaacaaagg cctcccagcc cccatcgaga aaaccatctc caaaacaaaa	1080
gggcagcccc gagaaccaca ggtgtacacc ctgcccccat cccgggagga gatgaccaag	1140
aaccagggtca gcctgacctg cctggtcaaa ggcttctacc ccagcgacat cgccgtggag	1200
tgggagagca atgggcagcc ggagaacaac tacaagacca cacctcccat gctggactcc	1260
gacggctcct tcttcctcta cagcaagctc accgtggaca agagcagggtg 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

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

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

gatatccgga tgacacagtc tccagcttcc ctgtctgcat ctctgggaga aactgtcaac	120
atcgaatgtc tagcaagtga ggacatttac agtgatttag catggtatca gcagaagcca	180
gggaaatctc ctcagctcct gatctataat gcaaatagct tgcaaaatgg ggtcccttca	240
cggtttagtg gcagtggatc tggcacacag tattctctaa aaataaacag cctgcaatct	300
gaagatgtcg cgacttattt ctgtcaacaa tataacaatt atcctccgac gttcgggtgga	360
ggcaccaagc tggaattgaa acgggctgat gctgcaccaa ctgtatctat cttcccacca	420
tccacggaac agttagcaac tggagggtgcc tcagtcgtgt gcctcatgaa caacttctat	480
cccagagaca tcagtgtcaa gtggaagatt gatggcactg aacgacgaga tgggtgcctg	540
gacagtgtta ctgatcagga cagcaaagac agcacgtaca gcatgagcag caccctctcg	600
ttgaccaagg ctgactatga aagtcataac ctctatacct gtgaggttgt tcataagaca	660
tcatcctcac ccgtcgtcaa gagcttcaac aggaatgagt gt	702

<210> 130
 <211> 234
 <212> PRT
 <213> Homo sapiens

<400> 130

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
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
145 150 155 160

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
atggacatca ggctcagctt ggcttttcctt gtccttttca taaaaggtgt ccagtgtgag 60

gtacagctgg tggagtctgg cggaggattg gtacagcctg caaactccct gaaactctcc 120

tgtgcagcct caggattcac tttcagtgac 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 ggtcaagggtc tatttcctg agccagtcac cgtgacctgg	540
aactctggag ccctgtccag cgggtgtcac accttcccag ctgtcctgca gtctgggctc	600
tacactctca ccagctcagt gactgtaccc tccagcacct ggcccagcca gaccgtcacc	660
tgcaacgtag cccacccggc cagcagcacc aagggtggaca agaaaattgt gcccagaaac	720
tgtggagggtg attgcaagcc ttgtatatgt acaggctcag aagtatcatc tgtcttcatc	780
ttccccccaa agcccaaaga tgtgctcacc atcactctga ctctaagggt 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 atcccccatc 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
ttcacgtgtt ctgtgctgca tgaaggcctg cacaaccacc atactgagaa gagtctctcc	1380
cactctccgg gtaaa	1395

<210> 132
 <211> 465
 <212> PRT
 <213> Homo sapiens

<400> 132

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

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

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
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<400>	133						
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agatgtgagt	ctgccctgac	tcagcctgcc	tccgtgtctg	ggtctcctgg	acagtcgata		120
accatctcct	gcactggaac	cagcagtgac	gttggtgggt	ataactctgt	ctcctggtac		180
caacagcacc	caggcaaagc	ccccaactc	atgatttatg	aggtcagtaa	tcggccctca		240
ggggtttcta	atcgcttctc	tggctccaag	tctggcaaca	cggcctccct	gaccatctct		300
gggctccagg	ctgaggacga	ggctgattat	tactgcaatt	catatacaag	caccagcatg		360
gtattcggcg	gagggaccaa	gctgaccgtc	ctaggtcagc	ccaaggctgc	cccctcggtc		420
actctgttcc	cgccctcctc	tgaggagctt	caagccaaca	aggccacact	ggtgtgtctc		480
ataagtgact	tctacccggg	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

<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
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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gttcagctgg tgcagtctgg agctgagggtg aagaagcctg gggcctcagt gaaggctctcc 120
tgcaaggctt ctggttacac ctttaaccagc tatggtatca gctgggtgcg acaggccccct 180
ggacaagggc ttgagtggat gggatgggtc agtttttata atggtaacac aaactatgca 240
cagaagctcc agggcagagg caccatgacc acagacccat ccacgagcac agcctacatg 300
gagctgagga gcctgagatc tgacgacacg gccgtgtatt actgtgagag aggctacggt 360
atggacgtct ggggccaaagg gaccacgggtc accgtctcct ctgcctccac caagggccca 420
tcggtcttcc ccctggcgcc ctgctccagg agcacctccg agagcacagc ggccctgggc 480
tgcttggtca aggactactt cccgaaccg gtgacgggtg cgtggaactc aggcgctctg 540
accagcggcg tgcacacctt cccagctgtc ctacagtcct caggactcta ctccctcagc 600
agcgtgggtga ccgtgccctc cagcaacttc ggcacccaga cctacacctg caacgtagat 660
cacaagccca gcaacaccaa ggtggacaag acagttgagc gcaaattgtg tgtcgagtgc 720

```

ccaccgtgcc cagcaccacc tgtggcagga ccgtcagtct tcctcttccc cccaaaaccc      780
aaggacaccc tcatgatctc ccggacccct gaggtcacgt gcgtgggtggt ggacgtgagc      840
cacgaagacc ccgaggtcca gttcaactgg tacgtggacg gcgtggaggt gcataatgcc      900
aagacaaagc cacgggagga gcagttcaac agcacgttcc gtgtgggtcag cgtcctcacc      960
gttgtgcacc aggactggct gaacggcaag gagtacaagt gcaagggtctc caacaaaggc     1020
ctcccagccc ccatcgagaa aaccatctcc aaaaccaaag ggacagccccg agaaccacag     1080
gtgtacaccc tgccccatc ccgggaggag atgaccaaga accagggtcag cctgacctgc     1140
ctgggtcaaag gcttctaccc cagcgacatc gccgtggagt gggagagcaa tgggcagccg     1200
gagaacaact acaagaccac acctcccatg ctggactccg acggctcctt cttcctctac     1260
agcaagctca ccgtggacaa gagcaggtgg cagcagggga acgtcttctc atgctccgtg     1320
atgcatgagg ctctgcacaa ccactacacg cagaagagcc tctccctgtc tccgggtaaa     1380

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<210> 136
<211> 460
<212> PRT
<213> Homo sapiens

```

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<400> 136
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```

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
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
 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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atggcatgga tccctctctt cctcggcgtc cttgcttact gcacaggatc cgtggcctcc      60
tatgaggtga ctcaggcacc ctcagtgtcc gtgtccccag gacagacagc cagcatcacc      120
tgctctggag ataaattggg ggataaatat gcttgttggt atcagcagaa gccaggccag      180
tcccctgtgc tggatcatcta tcaagatagc aagcggccct cagggatccc tgagcgattc      240
tctggctcca actctggaaa cacagccact ctgaccatca gcgggaccca ggctatggat      300
gaggctgact attactgtca ggcgtgggac agcagcactg cggtattcgg cggagggacc      360
aagctgaccg tcctaggtca gccaaggct gccccctcgg tcactctgtt cccgccctcc      420
tctgaggagc ttcaagccaa caaggccaca ctggtgtgtc tcataagtga cttctacccg      480
ggagccgtga cagtggcctg gaaggcagat agcagccccg tcaaggcggg agtggagacc      540
accacaccct ccaaacaaag caacaacaag tacgcggcca gcagctatct gacctgacg      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

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

atggactgga cctggagcat ccttttcttg gtggcagcag caacaggtgc ccactcccag	60
gttcagctgg tgcagtctgg agctgaggtg aagaagcctg gggcctcagt gaaggtctcc	120
tgcaaggctt ctggttacac ctttaccagt tatggtctca gctgggtgcg acaggcccct	180
ggacaagggc ttgagtggat gggatggatc atcccttaca atggtaacac aaactctgca	240
cagaaaactcc agggcagagt caccatgacc acagacacat ccacgagcac agcctacatg	300
gagctgagga gcctgagatc tgacgacacg gccgtgtatt tctgtgagag agacagggac	360
tacggtgtca attatgatgc ttttgatatc tggggccaag ggacaatggt caccgtctct	420
tcagcctcca ccaagggccc atcggctctc 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
cgcaaatgtt gtgtcgagtg cccaccgtgc ccagcaccac ctgtggcagg accgtcagtc	780
ttcctcttcc ccccaaaacc caaggacacc ctcatgatct cccggacccc tgaggtcacg	840
tgctgtgggtg tggacgtgag ccacgaagac cccgaggtcc agttcaactg gtacgtggac	900
ggcgtggagg tgcataatgc caagacaaaag ccacgggagg agcagttcaa cagcacgttc	960
cgtgtgggtca gcgtcctcac cgttgtgcac caggactggc tgaacggcaa ggagtacaag	1020
tgcaaggctt ccaacaaagg cctcccagcc cccatcgaga aaaccatctc caaaacaaaa	1080
gggcagcccc gagaaccaca ggtgtacacc ctgcccccat cccgggagga gatgaccaag	1140
aaccagggtca gcctgacctg cctgggtcaaa ggcttctacc ccagcgacat cgccgtggag	1200
tgggagagca atgggcagcc ggagaacaac tacaagacca cacctcccat gctggactcc	1260
gacggctcct tcttctctta 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
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
145 150 155 160

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

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

<400> 141
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tttatgctga ctcagcccca ctctgtgtcg gagtctccgg ggaagacggg ggccatctcc 120
tgcacccgca acagtggcag cattgccagc aactctgtgc agtggtacca gcagcgccccg 180
ggcagttccc ccaccactgt gatctttgag gataacaaaa gaccctctgg ggtccctgat 240
cggttctctg gctccatcga cagctcctcc aactctgcct ccctcaccat ctctgggtctg 300
aagactgagg acgaggctga ctactactgt cagtcttatg atagcaacaa ttgggtgttc 360
ggcggaggga ccaaactgac cgtcctaggt cagcccaagg ccaacccac tgtcactctg 420
ttcccgcct cctctgagga gctccaagcc aacaaggcca cactagtgtg tctgatcagt 480
gacttctacc cgggagctgt gacagtggcc tggaaggcag atggcagccc cgtcaaggcg 540

```

ggagtggaga ccaccaaacc ctccaaacag agcaacaaca agtacgcggc cagcagctac      600
ctgagcctga cgcccgagca gtggaagtcc cacagaagct acagctgcca ggtcacgcat      660
gaagggagca 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

```

```

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
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 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
 gactacggtg aagactacta ctactacggt atggacgtct ggggccaagg gaccacggtc 420
 accgtctcta gtgcctccac caagggccca tcggtcttcc ccctggcgcc ctgctccagg 480
 agcacctccg agagcacagc ggccctgggc tgcctgggtca aggactactt ccccgaaccg 540
 gtgacggtgt cgtggaactc aggcgctctg accagcggcg tgcacacctt cccagctgtc 600

ctacagtcct caggactcta ctccctcagc agcgtggtga ccgtgccctc cagcaacttc	660
ggcaccacaga cctacacctg caacgtagat cacaagccca gcaacaccaa ggtggacaag	720
acagttgagc gcaaagtgtg tgctcagtgcc ccaccgtgcc cagcaccacc tgtggcagga	780
ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggaccctt	840
gaggtcacgt gcgtgggtgt ggacgtgagc cacgaagacc ccgaggtcca gttcaactgg	900
tacgtggacg gcgtggaggt gcataatgcc aagacaaagc cacgggagga gcagttcaac	960
agcacgttcc gtgtggtcag cgtcctcacc gttgtgcacc aggactggct gaacggcaag	1020
gagtacaagt gcaaggcttc 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
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	1380
cagaagagcc tctccctgtc tccgggtaaa	1410

<210> 144
 <211> 470
 <212> PRT
 <213> Homo sapiens

<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
 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
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 ggggtccccgc tcagctcctg gggctcctgc tactctggct ccgagggtgcc      60
agatgtgaca tccagatgac ccagttctcca tcctccctct ccgcatccgt aggcgaccgc      120
gtaaccataa catgtagagc atctcaagat atttccaact atttgaattg gtaccaacaa      180
aaacccggca aagcacctaa actcctcatt tactatacat caagactcct ctccggcggt      240
ccatcacgat tctcaggctc cggctccggc acagatttca cactcactat ttcctccctc      300
caaccagaag attttgcaac ctattactgt caacaaggcg atacactccc atacacattc      360
ggcggcgagg caaaaagttga aattaaacgt acgggtggctg caccatctgt cttcatcttc      420
ccgccatctg 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 gctcgcccggt cacaaagagc ttcaacaggg gagagtgt      708

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<210> 146

<211> 236

<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

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
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 gtgcagctgg tgcagagcgg cgccgaggta aaaaaaccag gagcaagcgt taaagtttct 120
 tgtaaagcaa gcggatatac atttacagat tacaacatgc attgggtaag acaagcgcca 180
 ggacaaggat tggaatggat gggcgaaatt aaccctaata gtggaggagc aggctacaat 240
 caaaaattca aaggggagagt tacaatgaca acagacacaa gcacttcaac agcatatatg 300
 gaactgcgat cacttagaag cgacgataca gctgtatact attgcgcacg acttgggtat 360
 gatgatatat atgatgactg gtatttcgat gtttggggcc agggacaac agttaccgtc 420
 tctagtgcct ccaccaaggg cccatcggtc ttccccctgg cgccctgctc caggagcacc 480
 tccgagagca cagcggccct gggctgcctg gtcaaggact acttccccga accggtgacg 540
 gtgtcgtgga actcaggcgc tctgaccagc ggcgtgcaca cttcccagc tgcctacag 600
 tcctcaggac tctactccct cagcagcgtg gtgaccgtgc cctccagcaa cttcggcacc 660
 cagacctaca cctgcaacgt agatcacaag cccagcaaca ccaagggtgga caagacagtt 720
 gagcgcaaat gttgtgtcga gtgcccaccg tgcccagcac cacctgtggc aggaccgtca 780
 gtcttcctct tcccccaaaa 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
 aagtgcaagg tctccaacaa aggctccca gccccatcg agaaaaccat ctccaaaacc 1080
 aaagggcagc cccgagaacc acaggtgtac accctgcccc catcccggga ggagatgacc 1140
 aagaaccagg tcagcctgac ctgcctgggtc aaaggcttct accccagcga catcgccgtg 1200

gagtgggaga gcaatgggca gccggagaac aactacaaga ccacacctcc catgctggac	1260
tccgacggct ctttcttcct 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
		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
 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

tggtagcagc agaaaccagg acagcctcct aagctgctca ttactgggc atctaaccgg 240


```

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 ggaagggtgga taacgccctc      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

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
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 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 ctcctcagct	420
agcaccaagg gcccacggt cttccccctg gcgcccctgct 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 accaagggtgg acaagacagt tgagcgcaaa	720
tgttggtgctg agtgcccacc gtgcccagca ccacctgtgg caggaccgtc agtcttcctc	780
ttcccccaaa aacccaagga caccctcatg atctcccggg 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 cacagggtgta 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> 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
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
 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
450 455 460

Lys
465

<210> 153
<211> 708
<212> DNA
<213> Homo sapiens

<400> 153
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cgctgtgaca tccagatgac ccagtctcca tcttccgtgt ctgcatctgt aggagacaga 120
gtcaccatca cttgtcgggc gagtcagggt attagcagct ggtagcctg gtatcaacag 180
aaaccaggga aagcccctaa gtcctgatc tatggtgcat ccaatttggga aagtggggtc 240
ccatcaaggt tcagcggcag tggatctggg acagatttca ctctcaccat cagcagcctg 300
cagcctgaag attttgcaaa ttactattgt caacaggcta acagtttccc gtggacgttc 360
ggccaaggga ccaaggtgga aatcaaacgt acgggtggctg caccatctgt cttcatcttc 420
ccgccatctg 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 gctcgcccgt 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

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

<210> 155
 <211> 1398
 <212> DNA
 <213> Homo sapiens

<400> 155
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 cgctgtcagg tccagctggg acagtctggg gctgaggtga agaagcctgg ggcctcagtg 120
 aaggctctcct gcaaggtttc cggatacacc ctcaagtatt tatccatcca ctgggtgcga 180
 caggctcctg gaaaagggtc tgagtggatg ggaggttttg atcctcaaga tgggtgaaaca 240
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 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 ccgaaccggt gacgggtgtcg 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 caaaacccaa ggacaccctc atgatctccc ggacccctga ggtcacgtgc 840
 gtgggtgggtg acgtgagcca cgaagacccc gaggtccagt tcaactggta cgtggacggc 900

gtggagggtgc ataatgccaa gacaaagcca cgggaggagc agttcaacag cacgttccgt	960
gtggtcagcg tcctcaccgt tgtgcaccag gactggctga acggcaagga gtacaagtgc	1020
aaggtctcca acaaaggcct cccagcccc atcgagaaaa ccatctccaa 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 gctccgtgat gcatgaggct ctgcacaacc actacacgca gaagagcctc	1380
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
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
 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

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atggagaccc ctgcccagct gctgttcctg ctgtgctgt 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 agcgtgggtgt 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
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<210> 158

<211> 234

<212> PRT

<213> Homo sapiens

<400> 158

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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 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

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

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aggctgtcct gcgccgctag cggcttcacc ttttccaact acggcatgca ctgggtgagg	180
caagcccctg gagagggcct ggaatgggtg gctgctatct ggttcgacgc cagcgacaag	240
tactatgccg acgctgtgaa gggccgggtc accatcagca gggacaacag caagaacacc	300
ctctacctgc agatgaacag cctccgggcc gaggacaccg ctgtctatta ctgtgccagg	360
gaccaggcca tcttcggagt ggtccccgat tactggggcc agggaaacct ggtgaccgtg	420
tcctccgctt ccacaaaggg acctagcgtg ttccctctgg cccctagcag caagtccaca	480
agcggaggaa cagccgccct gggctgtctc gtgaaggact attttcccga gcccgtgacc	540
gtgtcctgga actccggagc cctgacctcc ggctgcata cattccccgc tgtcctgcag	600
tccagcggcc tctactccct gtcctccgtg gtcaccgtgc ctagcagcag cctgggcacc	660
cagacataca tctgcaacgt caaccacaag cttccaaca ccaaggtgga caagaagggtg	720
gagcccaagt cctgtgacaa gaccacacc tgcctccct gtcctgctcc tgagctgctg	780
ggaggccccct ccgtcttcct gttccctccc aagcccaagg acaccctgat gatctccagg	840
accctgaag tgacatgtgt ggtggtggat gtgagccacg aagatcccga ggtgaagttc	900
aactggtacg tggagggcgt ggagggtcac aacgctaaaa caaagccctg cgaggagcag	960
tacggatcca cctacagggt cgtgtccgtg ctcaccgtgc tccatcagga ctggctgaac	1020
ggaaaagagt acaagtgcaa agtcagcaat aaggccctgc ccgcccctat cgagaaaacc	1080
atcagcaagg ccaaaggcca gccagggag cctcagggtg 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
tacaccacga agagcctgag cctcagcccc ggaaag	1416

<210> 160
<211> 472
<212> PRT
<213> Homo sapiens

<400> 160

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
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
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

<400> 161
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 gaaatcgtcc tgacacagag ccctgccaca ctgtccctga gccctggaga gagggctacc 120
 ctgagctgca gggcttccca gagcgtgagc agcaacctgg cctggtacca acagaagcct 180
 ggccaggccc ctaggctgct gatctacggc gctgctacca gggccaccgg tattcctgac 240
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 agcgacgagc agctgaagag cggcaccgcc agcgtgggtgt gtctgctgaa caacttctac 480
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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

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
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 aggtgtgagg tgcagctggg cgaaagcgga ggaggagtgg tgcagcccgg aggggtccctg 120
 aggctgtcct gcgccgctag cggcttcacc ttttccaact acggcatgca ctgggtgagg 180
 caagcccctg gagagggcct ggaatgggtg gctgctatct ggttcgacgc cagcgacaag 240
 tactatgccg acgctgtgaa gggccgggtt accatcagca gggacaacgc caagaacacc 300
 ctctacctgc agatgaacag cctccgggcc gaggacaccg ctgtctatta ctgtgccagg 360
 gaccaggcca tcttcggagt ggtccccgat tactggggcc aggggaaccct ggtgaccgtg 420
 tcctccgctt ccacaaaggg acctagcgtg ttccctctgg cccctagcag caagtccaca 480
 agcggaggaa cagccgccct gggctgtctc gtgaaggact attttcccga gcccgtgacc 540
 gtgtcctgga actccggagc cctgacctcc ggcgtgcata cattccccgc tgtcctgcag 600

tccagcggcc tctactccct gtcctccgtg gtcaccgtgc ctagcagcag cctgggcacc	660
cagacataca tctgcaacgt caaccacaag ccttccaaca ccaaggtgga caagaaggtg	720
gagcccaagt cctgtgacaa gacccacacc tgcctccct gtcctgctcc tgagctgctg	780
ggaggcccct ccgtcttcct gttccctccc aagcccaagg acaccctgat gatctccagg	840
accctgaag tgacatgtgt ggtggtggat gtgagccacg aagatcccga ggtgaagttc	900
aactggtacg tggacggcgt ggagggtgcac aacgctaaaa caaagccctg cgaggagcag	960
tacggatcca cctacaggtg cgtgtccgtg ctcaccgtgc tccatcagga ctggctgaac	1020
ggaaaagagt acaagtgcaa agtcagcaat aaggccctgc ccgcccctat cgagaaaacc	1080
atcagcaagg ccaaaggcca gcccagggag 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 cctcagcccc 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
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 80

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
 145 150 155 160

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
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> 165

<211> 717

<212> DNA

<213> Homo sapiens

<400> 165

atgaggctcc ctgctcagct cctggggctg ctaatgctct gggtccctgg atccagtggg 60

gatattgtga tgaccagac tccactctcc tcacctgtca cccttgga gcccgcctcc 120

atctcctgca ggtctagtca aagcctcgta cacagtgatg gaaacaccta cttgaattgg 180

cttcagcaga ggccaggcca gcctccaaga ctctaattt ataagatttc taaccgggttc 240

tctggggctcc cagacagatt cactggcagt ggggcaggga cagatttcac actgaaaatc 300

agcagggtgg aagctgagga tgtcgggggt 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 cgcttgcgaa 660

gtcacccatc agggcctgag ctgcccgtc acaaagagct tcaacagggg agagtgt 717

<210> 166

<211> 239

<212> PRT

<213> Homo sapiens

<400> 166

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

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 ttgtctacac actcctgctg ctgaccaccc cttcctgggt cttgtcccag 60
 gtcaccttga aggagtctgg tcctgtgctg ctgaaaccca cagagaccct cacgctgacc 120
 tgcaccgtct ctgggttctc actcagcaat gctagaatgg gtgtgagctg gatccgtcag 180
 cccccaggga agggccctgga gtggcttgca cacatttttt cgaatgacga aaaatcctac 240
 atcacatctc tgaagagcag gctcaccatc tccaaggaca cctccaaaag ccagggtggtc 300
 cttaccatga ccaacatgga ccctgtggac acagccacat attactgtgc acggataccc 360
 ctacgatccc cgggtgcttt tgatatctgg ggccaaggga caatgggtcac cgtctcttca 420
 gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg 480
 ggacacagcg ccctgggctg cctgggtcaag gactacttcc ccgaaccggg gacgggtgtcg 540
 tggaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca 600
 ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg caccagacc 660
 tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagag agttgagccc 720
 aaatcttgtg aaaaaactca cacatgcca ccgtgcccag cacctgaact cctggggggga 780
 ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggaccct 840
 gaggtcacat gcgtggtggt ggacgtgagc cacgaagacc ctgagggtcaa gttcaactgg 900
 tacgtggacg gcgtggaggt gcataatgcc aagacaaagc cgcgggagga gcagtacaac 960
 agcacgtacc gtgtgggtcag cgtcctcacc gtcctgcacc aggactggct gaatggcaag 1020
 gagtacaagt gcaaggctct caacaaagcc ctcccagccc ccatcgagaa aaccatctcc 1080
 aaagccaaag ggcagccccg agaaccacag gtgtacaccc tgcccccatc ccgggaggag 1140
 atgaccaaga accagggtcag cctgacctgc ctgggtcaaag 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

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
 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 ctgtactctt ggctcccaga taccaccgga	60
gaaatttgtt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc	120
ctctcctgta gggccagtca gagggttcgc ggcagggtact tagcctggta ccagcagaaa	180
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca	240

gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag	300
cctgaagatt ttgcagtgtt ttactgtcag cagtatggta gttcacctcg gacgttcggc	360
caagggacca aggtggaaat caaacgaact gtggctgcac catctgtctt catcttcccg	420
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc	480
tatcccagag aggccaaaagt acagtggaag gtggataacg ccctccaatc gggtaactcc	540
caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcaccctg	600
acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt cacccatcag	660
ggcctgagct cgcccgtcac aaagagcttc aacagggggag 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
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
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 gctttttctt gtggctatth taaaagggtgt ccagtgtgag	60
gtgcagctgt tggagtctgg gggaggcttg gtacagcctg gggggtccct gagactctcc	120
tgtgcagcct ctggattcac ctttagcagc tatgccatga gctgggtccg ccaggctcca	180
gggaaggggc tggagtgggt ctcagggtatt actgggagtg gtggtagtac atactacgca	240
gactccgtga agggccggtt caccatctcc agagacaatt ccaagaacac gctgtatctg	300

caaatgaaca gcctgagagc cgaggacacg gccgtatatatt actgtgcgaa agatccaggg	360
actacggtga ttatgagttg gttcgacccc tggggccagg gaaccctggt caccgtctcc	420
tcagcctcca ccaagggccc atcggctcttc cccctggcgc cctgctccag gagcacctcc	480
gagagcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacggtg	540
tcgtggaact caggcgctct gaccagcggc gtgcacacct tcccagctgt cctacagtcc	600
tcaggactct actccctcag cagcgtgggtg 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
tgcgtgggtg 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 caaaacaaaa	1080
gggcagcccc gagaaccaca ggtgtacacc ctgcccccat cccgggagga gatgaccaag	1140
aaccagggtca gcctgacctg cctgggtcaaa ggcttctacc ccagcgacat cgccgtggag	1200
tgggagagca atgggcagcc ggagaacaac tacaagacca cacctcccat gctggactcc	1260
gacggctcct tcttctctta 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
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
 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
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 ctcatttacc 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

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
 <213> Homo sapiens

<400> 175
 atggactgga cctggagggt cttctgcttg ctggcagtgg cccaggtgc ccactcccag 60
 gtgcagctgg tgcagtctgg ggctgagggt aagaagcctg gggcctcagt gaaggctctcc 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 actgtgagag agagagggat 360
 actcgttttg gtaactgggg ccaagggact ctggtcaccg tctctagtgc ctccaccaag 420
 ggcccatcgg tcttccccct ggcaccctcc tccaagagca cctctggggg cacagcggcc 480
 ctgggctgcc tgggtcaagga ctacttcccc gaaccgggtga cgggtgctgt gaactcaggc 540
 gccctgacca gcggcgtgca caccttcccc gctgtcctac agtcctcagg actctactcc 600
 ctcagcagcg tggtgaccgt gccctccagc agcttgggca cccagaccta catctgcaac 660
 gtgaatcaca agcccagcaa caccaagggt gacaagaaag ttgagccaa atcttgtgac 720
 aaaactcaca catgcccacc gtgcccagca cctgaactcc tgggggggacc gtcagtcttc 780
 ctcttcccc caaaacccaa ggacaccctc atgatctccc ggaccctga ggtcacatgc 840
 gtgggtgggtg acgtgagcca cgaagaccct gaggtcaagt tcaactggta cgtggacggc 900

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gtggagggtgc ataatgccaa gacaaagccg cgggaggagc agtaccagag cacgtaccgt      960
gtggtcagcg tcctcaccgt cctgcaccag gactggctga atggcaagga gtacaagtgc      1020
aaggtctcca acaaagccct cccagcccc 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 gcaggggaac      1320
gtcttctcat gtcctgtgat gcatgaggct ctgcacaacc actacacgca gaagagcctc      1380
tccctgtctc cgggtaaa                                     1398

```

```

<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
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
 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

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tgttctggaa gcagctccaa catcggcagt aattatgtat actggtacca gcagctccca    180
ggagcggccc ccaaactcct catccttagg aataatcagc ggccctcagg ggtccctgac    240
cgattctctg gctccaagtc tggcacctca gcctccctga ccatcagtgg gctccgggtcc    300
gaggatgagg ctgactatta ttgtgcagca tgggatgaca gcctgagtgg ttgggtgttc    360
ggcggaggga ccaagctgac cgtcctaggt cagcccaagg ccaaccccac tgtcactctg    420
ttcccgccct cctctgagga gctccaagcc 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
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<210> 178

<211> 235

<212> PRT

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<400> 178

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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
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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

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

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agactctcct gtgcagcctc tggattcact ttcagtaacg cctggatgag ctgggtccgc	180
caggctccag ggaaggggct ggagtgggtt ggccgtatta aaagcaaaac tgatgggtggg	240
acaacagact aactgcacc cgtgaaaggc agattcacca tctcaagaga tgattcaaaa	300
aacacgctgt atctgcaaat gaatagcctg aaagccgagg acacagccgt gtattactgt	360
accacagatc ggaccgggta tagcatcagc tggcttagtt actactacta ctacggtatg	420
gacgtctggg gccaaaggac cacggtcacc gtctctagtg cctccaccaa gggcccatcg	480
gtcttcccc tggcgccctg ctccaggagc acctccgaga gcacagcggc cctgggctgc	540
ctgggtcaagg actacttccc cgaaccgggtg acgggtgtcgt ggaactcagg cgctctgacc	600
agcggcgtgc acaccttccc agctgtccta cagtcctcag gactctactc cctcagcagc	660
gtggtgaccg tgccctccag caacttcggc acccagacct acacctgcaa cgtagatcac	720
aagcccagca acaccaaggt ggacaagaca gttgagcgca aatgttgtgt cgagtgcccc	780
ccgtgcccag caccacctgt ggcaggaccg tcagtcttcc tcttcccccc aaaacccaag	840
gacacctca tgatctcccg gaccttgag gtcacgtgcg tggtggtgga cgtgagccac	900
gaagaccccg aggtccagtt caactggtac gtggacggcg tggagggtgca taatgccaa	960
acaaagccac gggaggagca gttcaacagc acgttccgtg tggtcagcgt cctcaccgtt	1020
gtgcaccagg actggctgaa cggcaaggag tacaagtga aggtctcaa caaaggcctc	1080
ccagcccca tcgagaaaac catctccaaa accaaagggc agccccgaga accacagggtg	1140
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gtcaaaggct tctaccccag cgacatcgcc gtggagtggg agagcaatgg gcagccggag	1260
aacaactaca agaccacacc tcccatgctg gactccgacg gctccttctt cctctacagc	1320
aagctcaccg tggacaagag cagggtggcag caggggaacg tcttctcatg ctccgtgatg	1380
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<211> 479
<212> PRT
<213> Homo sapiens

<400> 180

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 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

Asp Asp Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Lys Ala
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
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

Glu Arg Ala Thr Leu Ser Cys
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<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

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

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	

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

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

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	

Asp Arg Val Thr Ile Thr Cys
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<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

<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
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<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
<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
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<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
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
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<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
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
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

<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
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

<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
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<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

<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

<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

<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

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<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
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<210> 252

<211> 15

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<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
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<210> 255
<211> 15
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<213> Homo sapiens

<400> 255

Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr
1 5 10 15

<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
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<210> 258
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<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

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
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<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

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
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<210> 267

<211> 15

<212> PRT

<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

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<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
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<210> 271
<211> 15
<212> PRT
<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

<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

<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

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

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

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

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
<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

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

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

<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

<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

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

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
<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

<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

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

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
<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

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

<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
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
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
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

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

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
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

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

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 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

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

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

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

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

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

<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

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
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

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

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

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

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

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

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

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
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> 361
<211> 450
<212> PRT
<213> Homo sapiens

<400> 361

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
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
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

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

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

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

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
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
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

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

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

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

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

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
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
 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

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

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

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

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

<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
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> 377
<211> 109
<212> PRT
<213> Homo sapiens

<400> 377

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

<210> 378
<211> 115
<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

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