

32985_ST25.txt
SEQUENCE LISTING

<110> Pfizer Inc

<120> CCR2 antibodies

<130> PC032985

<160> 203

<170> PatentIn version 3.5

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20 25 30

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

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

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

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

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

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
115 120 125

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

Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
145 150 155 160

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
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Val Pro Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp
195 200 205
His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr
210 215 220
Gly Pro Pro Cys Pro Ser Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro
225 230 235 240
Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
245 250 255
Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp
260 265 270
Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
275 280 285
Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val
290 295 300
Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
305 310 315 320
Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys
325 330 335
Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
340 345 350
Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr
355 360 365
Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
370 375 380
Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
385 390 395 400
Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu Thr Val Asp Lys
405 410 415
Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser Val Met His Glu
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 20 25 30

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

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

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

Leu Gln Met Asn Arg Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
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Ala Arg Asp Gln Ala Tyr Trp Lys Tyr Phe Asp Ala Phe Asp Ile Trp
 100 105 110

Gly Gln Gly Thr Met Val Thr Val Ser Ser
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Gly

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gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
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aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
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 20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45

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

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

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

Ser Phe Gly Gln Gly Thr Lys Leu 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 Lys 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
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Phe Asn Arg Gly Glu Cys
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Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

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

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

Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
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Arg Ala Ser Gln Ser Ile Ser Ser Tyr Leu Asn
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Ala Ala Ser Ser Leu Gln Ser
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Asp Arg Val Thr Ile Thr Cys
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 1 5 10

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 gcacagaagt tccagggcag agtcaccttg accagggaca cgtccacgag cacagtctac 240
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 tcctgcaagg catctggata caccttcacc 90

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<210> 44
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 <212> DNA
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 agatctgagg acacggccgt atattactgt gcgaga 96

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<210> 46
 <211> 449
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<400> 46

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

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

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

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

Met Asp Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys

Ala Arg Glu Arg Trp Tyr Lys Trp Asn Phe Asp Val Phe Asp Ile Trp
100 105 110

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
115 120 125

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

Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
145 150 155 160

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
165 170 175

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
180 185 190

Val Pro Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp
195 200 205

His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr
210 215 220

Gly Pro Pro Cys Pro Ser Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro
225 230 235 240

Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
245 250 255

Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp
260 265 270

Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
275 280 285

Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val
290 295 300

Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
305 310 315 320

Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys
325 330 335

Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
340 345 350

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Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr
355 360 365

Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
370 375 380

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

Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu Thr Val Asp Lys
405 410 415

Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser Val Met His Glu
420 425 430

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

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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

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

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

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

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

Ala Arg Glu Arg Trp Tyr Lys Trp Asn Phe Asp Val Phe Asp Ile Trp
100 105 110

Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120

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Ser Tyr Tyr Met His
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1 5 10 15

Gly

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<400> 51

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> 52
<211> 14
<212> PRT
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<400> 52

Trp Ile Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly
1 5 10

<210> 53
<211> 32
<212> PRT
<213> Homo sapiens

32985_ST25.txt

<400> 53

Arg Val Thr Leu Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr Met Asp
1 5 10 15

Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
20 25 30

<210> 54

<211> 11

<212> PRT

<213> Homo sapiens

<400> 54

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
1 5 10

<210> 55

<211> 648

<212> DNA

<213> Homo sapiens

<400> 55

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cttcagcaga ggccaggcca atctccaagg cgcctaattt ataaggtttc taactgggac	180
gctgggggtcc cagacagatt cagcggcagt gggtcaggca ctgatttcac actgaaaatc	240
agcagggttg aggctgagga tggtgggttt tattacactg gccgatcgat caccgtcggc	300
caaggggacac gactggagat taaacgaact gtggctgcac catctgtctt catcttccc	360
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc	420
tatcccagag aggccaaagt acagtgaag gtggataacg cctccaatc gggtaactcc	480
caggagagtg tcacagagca ggacagcaag gacagcacct acagcctcag cagcacctg	540
acgctgagca aagcagacta cgagaaacac aaagtctacg cctgcgaagt caccatcag	600
ggcctgagct cgtcccgtcac aaagagcttc aacaggggag agtgtag	648

<210> 56

<211> 324

<212> DNA

<213> Homo sapiens

<400> 56

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cttcagcaga ggccaggcca atctccaagg cgcctaattt ataaggtttc taactgggac	180
gctgggggtcc cagacagatt cagcggcagt gggtcaggca ctgatttcac actgaaaatc	240
agcagggttg aggctgagga tggtgggttt tattacactg gccgatcgat caccgtcggc	300

caagggacac gactggagat taaa 32985_ST25.txt 324

<210> 57
 <211> 48
 <212> DNA
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<400> 57
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<210> 58
 <211> 21
 <212> DNA
 <213> Homo sapiens

<400> 58
 aaggtttcta actgggacgc t 21

<210> 59
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 <212> DNA
 <213> Homo sapiens

<400> 59
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<210> 60
 <211> 69
 <212> DNA
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 atctcctgc 69

<210> 61
 <211> 45
 <212> DNA
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<210> 62
 <211> 93
 <212> DNA
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<210> 63
 <211> 30
 <212> DNA
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<400> 63

gtcggccaag ggacacgact ggagattaaa 32985_ST25.txt

30

<210> 64
<211> 215
<212> PRT
<213> Homo sapiens
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Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Pro Val Tyr Ser
20 25 30
Asp Gly Asn Thr Tyr Leu Asn Trp Leu Gln Gln Arg Pro Gly Gln Ser
35 40 45
Pro Arg Arg Leu Ile Tyr Lys Val Ser Asn Trp Asp Ala Gly Val Pro
50 55 60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80
Ser Arg Val Glu Ala Glu Asp Val Gly Phe Tyr Tyr Thr Gly Arg Ser
85 90 95
Ile Thr Val Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg Thr Val Ala
100 105 110
Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
115 120 125
Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
130 135 140
Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
145 150 155 160
Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
165 170 175
Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val
180 185 190
Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
195 200 205
Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 65

32985_ST25.txt

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

<400> 65

Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Pro Val Tyr Ser
20 25 30

Asp Gly Asn Thr Tyr Leu Asn Trp Leu Gln Gln Arg Pro Gly Gln Ser
35 40 45

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

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

Ser Arg Val Glu Ala Glu Asp Val Gly Phe Tyr Tyr Thr Gly Arg Ser
85 90 95

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

<210> 66
<211> 16
<212> PRT
<213> Homo sapiens

<400> 66

Arg Ser Ser Gln Ser Pro Val Tyr Ser Asp Gly Asn Thr Tyr Leu Asn
1 5 10 15

<210> 67
<211> 7
<212> PRT
<213> Homo sapiens

<400> 67

Lys Val Ser Asn Trp Asp Ala
1 5

<210> 68
<211> 6
<212> PRT
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<400> 68

Thr Gly Arg Ser Ile Thr
1 5

32985_ST25.txt

<210> 69
<211> 23
<212> PRT
<213> Homo sapiens

<400> 69

Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
1 5 10 15

Gln Pro Ala Ser Ile Ser Cys
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<210> 70
<211> 15
<212> PRT
<213> Homo sapiens

<400> 70

Trp Leu Gln Gln Arg Pro Gly Gln Ser Pro Arg Arg Leu Ile Tyr
1 5 10 15

<210> 71
<211> 31
<212> PRT
<213> Homo sapiens

<400> 71

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 Phe Tyr Tyr
20 25 30

<210> 72
<211> 10
<212> PRT
<213> Homo sapiens

<400> 72

Val Gly Gln Gly Thr Arg Leu Glu Ile Lys
1 5 10

<210> 73
<211> 1350
<212> DNA
<213> Homo sapiens

<400> 73

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tcctgtgcag cctctggact caccttcagt agctatggca tgcactgggt ccgccaggct	120
ccaggcaagg ggctggagtg ggtggcagtt atattatatg atggaaagaa taaatactat	180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agctgaggac acggtctgtg attactgtgc gagagatcag	300

32985_ST25.txt

gcgtactgga cctactttga tgcttttgat atctggggcc aagggaacaat ggtcaccgtc 360
 tcttcagctt ccaccaaggg cccatccgtc tccccctgg cgccctgctc caggagcacc 420
 tccgagagca cagccgccct gggctgcctg gtcaaggact acttccccga accggtgacg 480
 gtgtcgtgga actcaggcgc cctgaccagc ggcgtgcaca ccttcccggc tgtcctacag 540
 tcctcaggac tctactccct cagcagcgtg gtgaccgtgc cctccagcag cttgggcacg 600
 aagacctaca cctgcaacgt agatcacaag cccagcaaca ccaagggtgga caagagagtt 660
 gagtccaaat atggtccccc atgcccatca tgcccagcac ctgagttcct ggggggacca 720
 tcagtcttcc tgttcccccc aaaacccaag gacactctca tgatctcccg gacccctgag 780
 gtcacgtgcg tgggtgggga cgtgagccag gaagaccccg aggtccagtt caactggtac 840
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 acgtaccgtg tggtcagcgt cctcaccgtc ctgcaccagg actggctgaa cggcaaggag 960
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 gccaaagggc agccccgaga gccacaggtg tacaccctgc ccccatccca ggaggagatg 1080
 accaagaacc aggtcagcct gacctgcctg gtcaaaggct tctaccccag cgacatcgcc 1140
 gtggagtggg agagcaatgg gcagccggag aacaactaca agaccacgcc tcccgtgctg 1200
 gactccgacg gctccttctt cctctacagc aggctaaccg tggacaagag cagggtggcag 1260
 gaggggaaatg tcttctcatg ctccgtgatg catgaggctc tgcacaacca ctacacacag 1320
 aagagcctct ccctgtctct gggtaaatga 1350

<210> 74
 <211> 366
 <212> DNA
 <213> Homo sapiens

<400> 74
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 ccaggcaagg ggctggagtg ggtggcagtt atattatatg atggaaagaa taaatactat 180
 gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatga acagcctgag agctgaggac acggctgtgt attactgtgc gagagatcag 300
 gcgtactgga cctactttga tgcttttgat atctggggcc aagggaacaat ggtcaccgtc 360
 tcttca 366

<210> 75
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<400> 75
 agctatggca tgcac 15

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<210> 76
<211> 51
<212> DNA
<213> Homo sapiens

<400> 76
gttatattat atgatggaaa gaataaatac tatgcagact ccgtgaaggg c 51

<210> 77
<211> 39
<212> DNA
<213> Homo sapiens

<400> 77
gatcaggcgt actggaccta ctttgatgct tttgatatc 39

<210> 78
<211> 90
<212> DNA
<213> Homo sapiens

<400> 78
caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggact caccttcagt 90

<210> 79
<211> 42
<212> DNA
<213> Homo sapiens

<400> 79
tgggtccgcc aggctccagg caaggggctg gagtgggtgg ca 42

<210> 80
<211> 96
<212> DNA
<213> Homo sapiens

<400> 80
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agagctgagg acacggctgt gtattactgt gcgaga 96

<210> 81
<211> 33
<212> DNA
<213> Homo sapiens

<400> 81
tggggccaag ggacaatggt caccgtctct tca 33

<210> 82
<211> 449
<212> PRT
<213> Homo sapiens

<400> 82
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg

32985_ST25.txt

1	5	10	15
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Leu Thr Phe Ser Ser Tyr
 20 25 30

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

Ala Val Ile Leu Tyr Asp Gly Lys Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

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

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

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

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
 115 120 125

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

Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
 145 150 155 160

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
 165 170 175

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
 180 185 190

Val Pro Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp
 195 200 205

His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr
 210 215 220

Gly Pro Pro Cys Pro Ser Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro
 225 230 235 240

Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
 245 250 255

Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp
 260 265 270

32985_ST25.txt

Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
275 280 285

Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val
290 295 300

Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
305 310 315 320

Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys
325 330 335

Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
340 345 350

Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr
355 360 365

Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
370 375 380

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

Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu Thr Val Asp Lys
405 410 415

Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser Val Met His Glu
420 425 430

Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly
435 440 445

Lys

<210> 83
<211> 122
<212> PRT
<213> Homo sapiens

<400> 83

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 Leu Thr Phe Ser Ser Tyr
20 25 30

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

32985_ST25.txt

Ala Val Ile Leu Tyr Asp Gly Lys Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

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

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

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

Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 84
<211> 5
<212> PRT
<213> Homo sapiens

<400> 84

Ser Tyr Gly Met His
1 5

<210> 85
<211> 17
<212> PRT
<213> Homo sapiens

<400> 85

Val Ile Leu Tyr Asp Gly Lys Asn Lys Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 86
<211> 13
<212> PRT
<213> Homo sapiens

<400> 86

Asp Gln Ala Tyr Trp Thr Tyr Phe Asp Ala Phe Asp Ile
1 5 10

<210> 87
<211> 30
<212> PRT
<213> Homo sapiens

<400> 87

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

32985_ST25.txt

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

<210> 88
<211> 14
<212> PRT
<213> Homo sapiens

<400> 88

Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala
1 5 10

<210> 89
<211> 32
<212> PRT
<213> Homo sapiens

<400> 89

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

<210> 90
<211> 11
<212> PRT
<213> Homo sapiens

<400> 90

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
1 5 10

<210> 91
<211> 645
<212> DNA
<213> Homo sapiens

<400> 91

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gatcagtctc caaagctcct catcaagtat gcttcccagt cttctcagg ggtccctcg	180
aggttcagtg gcagtggatc tgcgacagat ttcacctca ccatcaatag cctggaagct	240
gaagatgctg caacgtatta ctgtcatcag agtagtagtt taccgctcac ttccggcgga	300
gggaccaagg tggagatcaa acgaactgtg gctgcacat ctgtcttcat cttcccgcca	360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	420
cccagagagg ccaaagtaca gtggaagggt gataacgccc tccaatcggg taactcccag	480
gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg	540
ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc	600

32985_ST25.txt

ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gttag 645

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<212> DNA
<213> Homo sapiens

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gatcagtcctc caaagctcct catcaagtat gcttcccagt ccttctcagg ggtcccctcg 180
aggttcagtg gcagtggatc tgcgacagat ttcaccctca ccatcaatag cctggaagct 240
gaagatgctg caacgtatta ctgtcatcag agtagtagtt taccgctcac tttcggcgga 300
gggaccaagg tggagatcaa a 321

<210> 93
<211> 33
<212> DNA
<213> Homo sapiens

<400> 93
cgggccagtc agagcattgg tagtagctta cac 33

<210> 94
<211> 21
<212> DNA
<213> Homo sapiens

<400> 94
tatgcttccc agtccttctc a 21

<210> 95
<211> 27
<212> DNA
<213> Homo sapiens

<400> 95
catcagagta gtagtttacc gctcact 27

<210> 96
<211> 69
<212> DNA
<213> Homo sapiens

<400> 96
gaaattgtgc tgactcagtc tccagacttt cagtctgtga ctccaaagga gaaagtcacc 60
atcacctgc 69

<210> 97
<211> 45
<212> DNA
<213> Homo sapiens

<400> 97

32985_ST25.txt
tgggtaccagc agaaaccaga tcagttctcca aagtcctca tcaag 45

<210> 98
<211> 96
<212> DNA
<213> Homo sapiens

<400> 98
gggggtcccct cgagggttcag tggcagtgga tctgcgacag atttcaccct caccatcaat 60
agcctggaag ctgaagatgc tgcaacgtat tactgt 96

<210> 99
<211> 30
<212> DNA
<213> Homo sapiens

<400> 99
ttcggcgag ggaccaaggt ggagatcaaa 30

<210> 100
<211> 214
<212> PRT
<213> Homo sapiens

<400> 100

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 Arg Ala Ser Gln Ser Ile Gly Ser Ser
20 25 30

Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile
35 40 45

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

Ser Gly Ser Ala Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala
65 70 75 80

Glu Asp Ala Ala Thr Tyr Tyr Cys His Gln Ser Ser Ser Leu 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

32985_ST25.txt

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> 101
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 101

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 Arg Ala Ser Gln Ser Ile Gly Ser Ser
 20 25 30

Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile
 35 40 45

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

Ser Gly Ser Ala Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala
 65 70 75 80

Glu Asp Ala Ala Thr Tyr Tyr Cys His Gln Ser Ser Ser Leu Pro Leu
 85 90 95

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

<210> 102
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 102

Arg Ala Ser Gln Ser Ile Gly Ser Ser Leu His
 1 5 10

<210> 103
 <211> 7

32985_ST25.txt

<212> PRT
<213> Homo sapiens
<400> 103

Tyr Ala Ser Gln Ser Phe Ser
1 5

<210> 104
<211> 9
<212> PRT
<213> Homo sapiens
<400> 104

His Gln Ser Ser Ser Leu Pro Leu Thr
1 5

<210> 105
<211> 23
<212> PRT
<213> Homo sapiens
<400> 105

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
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<210> 106
<211> 15
<212> PRT
<213> Homo sapiens
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Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile Lys
1 5 10 15

<210> 107
<211> 32
<212> PRT
<213> Homo sapiens
<400> 107

Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Ala Thr Asp Phe Thr
1 5 10 15

Leu Thr Ile Asn Ser Leu Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys
20 25 30

<210> 108
<211> 10
<212> PRT
<213> Homo sapiens
<400> 108

32985_ST25.txt

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
 1 5 10

<210> 109
 <211> 645
 <212> DNA
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<400> 109
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 gatcagtcctc caaagctcct catcaagtat gtttcccagt ctttctcagg ggtcccctcg 180
 aggttcagtgc gcagtggatc tgggacagat ttcaccctca ccatcaatag cctggaagct 240
 gaagatgctg caacgtatta ctgtcatcag agtagtagtt taccgctcac tttcggcgga 300
 gggaccaagg tggagatcaa acgaactgtg gctgcacat ctgtcttcat cttcccacca 360
 tctgatgagc agttgaaatc tggaaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggt gataacgcc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gttag 645

<210> 110
 <211> 321
 <212> DNA
 <213> Homo sapiens

<400> 110
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 atcacctgcc gggccagtca gagcattggt agtagcttac actggtacca gcagaaacca 120
 gatcagtcctc caaagctcct catcaagtat gtttcccagt ctttctcagg ggtcccctcg 180
 aggttcagtgc gcagtggatc tgggacagat ttcaccctca ccatcaatag cctggaagct 240
 gaagatgctg caacgtatta ctgtcatcag agtagtagtt taccgctcac tttcggcgga 300
 gggaccaagg tggagatcaa a 321

<210> 111
 <211> 96
 <212> DNA
 <213> Homo sapiens

<400> 111
 ggggtcccct cgaggttcag tggcagtggg tctgggacag atttcaccct caccatcaat 60
 agcctggaag ctgaagatgc tgcaacgtat tactgt 96

<210> 112
 <211> 214
 <212> PRT

32985_ST25.txt

<213> Homo sapiens

<400> 112

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 Arg Ala Ser Gln Ser Ile Gly Ser Ser
20 25 30

Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile
35 40 45

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala
65 70 75 80

Glu Asp Ala Ala Thr Tyr Tyr Cys His Gln Ser Ser Ser Leu 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> 113

<211> 107

<212> PRT

<213> Homo sapiens

<400> 113

32985_ST25.txt

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 Arg Ala Ser Gln Ser Ile Gly Ser Ser
20 25 30

Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile
35 40 45

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala
65 70 75 80

Glu Asp Ala Ala Thr Tyr Tyr Cys His Gln Ser Ser Ser Leu Pro Leu
85 90 95

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

<210> 114
<211> 32
<212> PRT
<213> Homo sapiens

<400> 114

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 Thr Tyr Tyr Cys
20 25 30

<210> 115
<211> 1350
<212> DNA
<213> Homo sapiens

<400> 115

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ccaggcaagg ggctggagtg ggtggcagtt atattatatg atggaagaa taaatactat	180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cagctgtat	240
ctgcaaatga acagcctgag agctgaggac acggctgtgt attactgtgc gagagatcag	300
gcgtactgga cctactttga tgcttttgat atctggggcc aagggaacaat ggtcaccgtc	360
tcttcagctt ccaccaaggc cccatccgtc ttccccctgg cgcctgtctc caggagcacc	420
tccgagagca cagccgccct gggtgcctg gtcaaggact acttccccga accggtgacg	480
gtgtcgtgga actcaggcgc cctgaccagc ggcgtgcaca ccttcccggc tgctctacag	540

32985_ST25.txt

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tcctcaggac tctactccct cagcagcgtg gtgaccgtgc cctccagcag cttgggcacg      600
aagacctaca cctgcaacgt agatcacaag cccagcaaca ccaaggtgga caagagagtt      660
gagtccaaat atggtccccc atgccacca tgcccagcac ctgagttcct ggggggacca      720
tcagtcttcc tgttccccc aaaaccaag gacactctca tgatctcccg gaccctgag      780
gtcacgtgcg tggtggtgga cgtgagccag gaagaccccg aggtccagtt caactggtac      840
gtggatggcg tggaggtgca taatgccaag acaaagccgc gggaggagca gttcaacagc      900
acgtaccgtg tggtcagcgt cctcaccgtc ctgcaccagg actggctgaa cggcaaggag      960
tacaagtgca aggtctccaa caaaggcctc ccgtctctca tcgagaaaac catctccaaa    1020
gccaaagggc agccccgaga gccacagggtg tacacctgc ccccatccca ggaggagatg    1080
accaagaacc aggtcagcct gacctgcctg gtcaaaggct tctaccctag cgacatcgcc    1140
gtggagtggg agagcaatgg gcagccggag aacaactaca agaccacgcc tcccgctgctg    1200
gactccgacg gctccttctt cctctacagc aggctaaccg tggacaagag caggtggcag    1260
gaggggaatg tcttctcatg ctccgtgatg catgaggctc tgcacaacca ctacacacag    1320
aagagcctct ccctgtctct gggtaaatga                                1350

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<210> 116
 <211> 449
 <212> PRT
 <213> Homo sapiens

<400> 116

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

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

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

Ala Val Ile Leu Tyr Asp Gly Lys Asn Lys Tyr Tyr Ala Asp Ser Val
50         55         60

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

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

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

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
115        120        125

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32985_ST25.txt

Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr
 130 135 140
 Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
 145 150 155 160
 Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
 165 170 175
 Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
 180 185 190
 Val Pro Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp
 195 200 205
 His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr
 210 215 220
 Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro
 225 230 235 240
 Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
 245 250 255
 Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp
 260 265 270
 Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
 275 280 285
 Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val
 290 295 300
 Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
 305 310 315 320
 Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys
 325 330 335
 Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
 340 345 350
 Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr
 355 360 365
 Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
 370 375 380
 Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
 385 390 395 400

32985_ST25.txt

Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu Thr Val Asp Lys
405 410 415

Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser Val Met His Glu
420 425 430

Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly
435 440 445

Lys

<210> 117
<211> 389
<212> PRT
<213> Homo sapiens

<400> 117

Met Asp Ser Lys Gly Ser Ser Gln Lys Gly Ser Arg Leu Leu Leu Leu
1 5 10 15

Leu Val Val Ser Asn Leu Leu Leu Cys Gln Gly Val Val Ser Asp Tyr
20 25 30

Lys Asp Asp Asp Asp Val Asp Glu Thr Pro Asn Thr Thr Glu Asp Tyr
35 40 45

Asp Thr Thr Thr Glu Phe Asp Tyr Gly Asp Ala Thr Pro Cys Gln Lys
50 55 60

Val Asn Glu Arg Ala Phe Gly Ala Gln Leu Leu Pro Pro Leu Tyr Ser
65 70 75 80

Leu Val Phe Ile Phe Gly Phe Val Gly Asn Met Leu Val Val Leu Ile
85 90 95

Leu Ile Asn Cys Lys Lys Leu Lys Cys Leu Thr Asp Ile Tyr Leu Leu
100 105 110

Asn Leu Ala Ile Ser Asp Leu Leu Phe Leu Ile Thr Leu Pro Leu Trp
115 120 125

Ala His Ser Ala Ala Asn Glu Trp Val Phe Gly Asn Ala Met Cys Lys
130 135 140

Leu Phe Thr Gly Leu Tyr His Ile Gly Tyr Phe Gly Gly Ile Phe Phe
145 150 155 160

Ile Ile Leu Leu Thr Ile Asp Arg Tyr Leu Ala Ile Val His Ala Val
165 170 175

32985_ST25.txt

Phe Ala Leu Lys Ala Arg Thr Val Thr Phe Gly Val Val Thr Ser Val
180 185 190

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

Thr Lys Cys Gln Lys Glu Asp Ser Val Tyr Val Cys Gly Pro Tyr Phe
210 215 220

Pro Arg Gly Trp Asn Asn Phe His Thr Ile Met Arg Asn Ile Leu Gly
225 230 235 240

Leu Val Leu Pro Leu Leu Ile Met Val Ile Cys Tyr Ser Gly Ile Leu
245 250 255

Lys Thr Leu Leu Arg Cys Arg Asn Glu Lys Lys Arg His Arg Ala Val
260 265 270

Arg Val Ile Phe Thr Ile Met Ile Val Tyr Phe Leu Phe Trp Thr Pro
275 280 285

Tyr Asn Ile Val Ile Leu Leu Asn Thr Phe Gln Asp Phe Leu Phe Thr
290 295 300

His Glu Cys Glu Gln Ser Arg His Leu Asp Leu Ala Val Gln Val Thr
305 310 315 320

Glu Val Ile Ala Tyr Thr His Cys Cys Val Asn Pro Val Ile Tyr Ala
325 330 335

Phe Val Gly Glu Arg Phe Arg Lys Tyr Leu Arg Gln Leu Phe His Arg
340 345 350

Arg Val Ala Val His Leu Val Lys Trp Leu Pro Phe Leu Ser Val Asp
355 360 365

Arg Leu Glu Arg Val Ser Ser Thr Ser Pro Ser Thr Gly Glu His Glu
370 375 380

Leu Ser Ala Gly Phe
385

<210> 118
<211> 1167
<212> DNA
<213> Homo sapiens

<400> 118
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aatctactct tgtgccaggg tgtggtctcc gattacaaag atgatgatga tgtcgacgaa 120

32985_ST25.txt

actccaaaca ccacagagga ctatgacacg accacagagt ttgactatgg ggatgcaact 180
 ccgtgccaga aggtgaacga gagggccttt ggggcccaac tcctgcctcc gctctactcg 240
 ctggtgttca tctttggttt tgtgggcaac atgctggtcg tcctcatctt aataaactgc 300
 aaaaagctga agtgcttgac tgacatttac ctgctcaacc tggccatctc tgatctgctt 360
 tttcttatta ctctccatt gtgggctcac tctgctgcaa atgagtgggt ctttgggaat 420
 gcaatgtgca aattattcac agggctgtat cacatcggtt attttggcgg aatcttcttc 480
 atcatcctcc tgacaatcga tagatacctg gctattgtcc atgctgtgtt tgctttaaaa 540
 gccaggacgg tcacctttgg ggtggtgaca agtgtgatca cctggttggg ggctgtgttt 600
 gcttctgtcc caggaatcat ctttactaaa tgccagaaag aagattctgt ttatgtctgt 660
 ggcccttatt ttccacgagg atggaataat ttccacacaa taatgaggaa cattttgggg 720
 ctggtcctgc cgctgctcat catggtcatc tgctactcgg gaatcctgaa aacctgctt 780
 cgggtgctgaa acgagaagaa gaggcataag gcagtgagag tcactttcac catcatgatt 840
 gtttactttc tcttctggac tcctataac attgtcattc tcctgaacac cttccaagac 900
 ttctgttca cccatgagtg tgagcagagc agacatttgg acctggctgt gcaagtgacg 960
 gaggtgatcg cctacacgca ctgctgtgtc aaccagtgta tctacgcctt cgttggtgag 1020
 aggttccgga agtacctgcg gcagttgttc cacaggcgtg tggctgtgca cctggttaaa 1080
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<210> 119
 <211> 394
 <212> PRT
 <213> Homo sapiens

<400> 119

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

32985_ST25.txt

Leu Val Gln Tyr Lys Arg Leu Lys Asn Met Thr Ser Ile Tyr Leu Leu
 100 105 110
 Asn Leu Ala Ile Ser Asp Leu Leu Phe Leu Phe Thr Leu Pro Phe Trp
 115 120 125
 Ile Asp Tyr Lys Leu Lys Asp Asp Trp Val Phe Gly Asp Ala Met Cys
 130 135 140
 Lys Ile Leu Ser Gly Phe Tyr Tyr Thr Gly Leu Tyr Ser Glu Ile Phe
 145 150 155 160
 Phe Ile Ile Leu Leu Thr Ile Asp Arg Tyr Leu Ala Ile Val His Ala
 165 170 175
 Val Phe Ala Arg Ala Arg Thr Val Thr Phe Gly Val Ile Thr Ser
 180 185 190
 Ile Ile Ile Trp Ala Leu Ala Ile Leu Ala Ser Met Pro Gly Leu Tyr
 195 200 205
 Phe Ser Lys Thr Gln Trp Glu Phe Thr His His Thr Cys Ser Leu His
 210 215 220
 Phe Pro His Glu Ser Leu Arg Glu Trp Lys Leu Phe Gln Ala Leu Lys
 225 230 235 240
 Leu Asn Leu Phe Gly Leu Val Leu Pro Leu Leu Val Met Ile Ile Cys
 245 250 255
 Tyr Thr Gly Ile Ile Lys Ile Leu Leu Arg Arg Pro Asn Glu Lys Lys
 260 265 270
 Ser Lys Ala Val Arg Leu Ile Phe Val Ile Met Ile Ile Phe Phe Leu
 275 280 285
 Phe Trp Thr Pro Tyr Asn Leu Thr Ile Leu Ile Ser Val Phe Gln Glu
 290 295 300
 Phe Phe Gly Leu Ser Asn Cys Glu Ser Thr Ser Gln Leu Asp Gln Ala
 305 310 315 320
 Thr Gln Val Thr Glu Thr Leu Gly Met Thr His Cys Cys Ile Asn Pro
 325 330 335
 Ile Ile Tyr Ala Phe Val Gly Glu Lys Phe Arg Arg Tyr Leu Ser Val
 340 345 350
 Phe Phe Arg Lys His Ile Thr Lys Arg Phe Cys Lys Gln Cys Pro Val

355 360 32985_ST25.txt 365

Phe Tyr Arg Glu Thr Val Asp Gly Val Thr Ser Thr Asn Thr Pro Ser
370 375 380

Thr Gly Glu Gln Glu Val Ser Ala Gly Leu
385 390

<210> 120
<211> 1182
<212> DNA
<213> Homo sapiens

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<400> 120
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aatctactct tgtgccaggg tgtggtctcc gattacaaag atgatgatga tgtcgacgaa      120
actccaaaca ccacagagga ctatgacacg accacagagt ttgactatgg ggatgcaact      180
ccgtgccaga aggtgaacga gagggccttt ggggcccaac tgctgcccc tctgtactcc      240
ttggtatttg tcattggcct ggttggaac atcctggtgg tcctggctct tgtgcaatac      300
aagaggctaa aaaacatgac cagcatctac ctctgaacc tggccatttc tgacctgctc      360
ttcctgttca cgcttccctt ctggatcgac tacaagttga aggatgactg ggtttttggt      420
gatgccatgt gtaagatcct ctctggggtt tattacacag gcttgtacag cgagatcttt      480
ttcatcatcc tgctgacgat tgacaggtac ctggccatcg tccacgccgt gtttgccctg      540
cgggcacgga ccgtcacctt tgggtgcatc accagcatca tcatttgggc cctggccatc      600
ttggcttcca tgccaggctt atacttttcc aagacccaat ggggaattcac tcaccacacc      660
tgcagccttc actttcctca cgaaagccta cgagagtga agctgtttca ggtcttgaaa      720
ctgaacctct ttgggctggt attgcctttg ttggtcatga tcatctgcta cacagggatt      780
ataaagattc tgctaagacg accaaatgag aagaaatcca aagctgtccg tttgattttt      840
gtcatcatga tcatcttttt tctcttttgg accccctaca atttgactat acttatttct      900
gttttccagg aattcttccg cctgagtaac tgtgaaagca ccagtcaact ggaccaagcc      960
acgcagggtga cagagactct tgggatgact cactgctgca tcaatcccat catctatgcc     1020
ttcgttgggg agaagttcag aaggtatctc tcggtgttct tccgaaagca catcaccaag     1080
cgcttctgca aacaatgtcc agttttctac agggagacag tggatggagt gacttcaaca     1140
aacacgcctt ccactgggga gcaggaagtc tcggctggtt ta                          1182
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<210> 121
<211> 390
<212> PRT
<213> Homo sapiens

<400> 121

Met Asp Ser Lys Gly Ser Ser Gln Lys Gly Ser Arg Leu Leu Leu Leu
1 5 10 15

32985_ST25.txt

Leu Val Val Ser Asn Leu Leu Leu Cys Gln Gly Val Val Ser Asp Tyr
 20 25 30
 Lys Asp Asp Asp Asp Val Asp Glu Thr Pro Asn Thr Thr Glu Asp Tyr
 35 40 45
 Asp Thr Thr Thr Glu Phe Asp Tyr Gly Asp Ala Thr Pro Cys Gln Lys
 50 55 60
 Val Asn Glu Arg Ala Phe Gly Ala Gln Leu Leu Pro Pro Leu Tyr Ser
 65 70 75 80
 Leu Val Phe Ile Phe Gly Phe Val Gly Asn Met Leu Val Val Leu Ile
 85 90 95
 Leu Ile Asn Cys Lys Lys Leu Lys Cys Leu Thr Asp Ile Tyr Leu Leu
 100 105 110
 Asn Leu Ala Ile Ser Asp Leu Leu Phe Leu Ile Thr Leu Pro Leu Trp
 115 120 125
 Ala His Ser Ala Ala Asn Glu Trp Val Phe Gly Asn Ala Met Cys Lys
 130 135 140
 Leu Phe Thr Gly Leu Tyr His Ile Gly Tyr Phe Gly Gly Ile Phe Phe
 145 150 155 160
 Ile Ile Leu Leu Thr Ile Asp Arg Tyr Leu Ala Ile Val His Ala Val
 165 170 175
 Phe Ala Leu Lys Ala Arg Thr Val Thr Phe Gly Val Val Thr Ser Val
 180 185 190
 Ile Thr Trp Leu Val Ala Val Phe Ala Ser Val Pro Gly Ile Ile Phe
 195 200 205
 Thr Lys Cys Gln Lys Glu Asp Ser Val Tyr Val Cys Gly Pro Tyr Phe
 210 215 220
 Pro Arg Gly Trp Asn Asn Phe His Thr Ile Met Arg Asn Ile Leu Gly
 225 230 235 240
 Leu Val Leu Pro Leu Leu Ile Met Val Ile Cys Tyr Ser Gly Ile Leu
 245 250 255
 Lys Thr Leu Leu Arg Cys Arg Asn Glu Lys Lys Arg His Arg Ala Val
 260 265 270
 Arg Val Ile Phe Thr Ile Met Ile Val Tyr Phe Leu Phe Trp Thr Pro

275

280

285

Tyr Asn Ile Val Ile Leu Leu Asn Thr Phe Gln Glu Phe Phe Gly Leu
 290 295 300

Ser Asn Cys Glu Ser Thr Ser Gln Leu Asp Gln Ala Thr Gln Val Thr
 305 310 315 320

Glu Thr Leu Gly Met Thr His Cys Cys Ile Asn Pro Ile Ile Tyr Ala
 325 330 335

Phe Val Gly Glu Lys Phe Arg Arg Tyr Leu Ser Val Phe Phe Arg Lys
 340 345 350

His Ile Thr Lys Arg Phe Cys Lys Gln Cys Pro Val Phe Tyr Arg Glu
 355 360 365

Thr Val Asp Gly Val Thr Ser Thr Asn Thr Pro Ser Thr Gly Glu Gln
 370 375 380

Glu Val Ser Ala Gly Leu
 385 390

<210> 122

<211> 1170

<212> DNA

<213> Homo sapiens

<400> 122

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aatctactct tgtgccaggg tgtggtctcc gattacaaag atgatgatga tgtcgacgaa	120
actccaaaca ccacagagga ctatgacacg accacagagt ttgactatgg ggatgcaact	180
ccgtgccaga aggtgaacga gagggccttt ggggcccaac tcctgcctcc gctctactcg	240
ctggtgttca tctttggttt tgtgggcaac atgctggctg tcctcatctt aataaactgc	300
aaaaagctga agtgcttgac tgacatttac ctgctcaacc tggccatctc tgatctgctt	360
tttcttatta ctctccatt gtgggctcac tctgctgcaa atgagtgggt ctttggaat	420
gcaatgtgca aattattcac agggctgtat cacatcggtt attttgccgg aatcttcttc	480
atcatcctcc tgacaatcga tagatactg gctattgtcc atgctgtgtt tgctttaaaa	540
gccaggacgg tcaccttggt ggtggtgaca agtgtgatca cctggttggg ggctgtgttt	600
gcttctgtcc caggaatcat ctttactaaa tgccagaaag aagattctgt ttatgtctgt	660
ggcccttatt ttccacgagg atggaataat ttccacacaa taatgaggaa cattttgggg	720
ctggtcctgc cgctgctcat catggtcatc tgctactcgg gaatcctgaa aaccttctt	780
cggtgtcgaa acgagaagaa gaggcatagg gcagtgagag tcattctcac catcatgatt	840
gtttactttc tcttctggac tcctataaac attgtcattc tcctgaacac cttccaggaa	900

32985_ST25.txt
 ttcttcggcc tgagtaactg tgaaagcacc agtcaactgg accaagccac gcaggtgaca 960
 gagactcttg ggatgactca ctgctgcac aatcccatca tctatgcctt cggtggggag 1020
 aagttcagaa ggtatctctc ggtgttcttc cgaaagcaca tcaccaagcg cttctgcaaa 1080
 caatgtccag ttttctacag ggagacagtg gatggagtga cttcaacaaa caccgcttcc 1140
 actggggagc aggaagtctc ggctggttta 1170

<210> 123
 <211> 400
 <212> PRT
 <213> Homo sapiens

<400> 123

Met Asp Ser Lys Gly Ser Ser Gln Lys Gly Ser Arg Leu Leu Leu Leu
 1 5 10 15
 Leu Val Val Ser Asn Leu Leu Leu Cys Gln Gly Val Val Ser Asp Tyr
 20 25 30
 Lys Asp Asp Asp Asp Val Asp Leu Ser Thr Ser Arg Ser Arg Phe Ile
 35 40 45
 Arg Asn Thr Asn Glu Ser Gly Glu Glu Val Thr Thr Phe Phe Asp Tyr
 50 55 60
 Asp Tyr Gly Ala Pro Cys His Lys Phe Asp Val Lys Gln Ile Gly Ala
 65 70 75 80
 Gln Leu Leu Pro Pro Leu Tyr Ser Leu Val Phe Ile Phe Gly Phe Val
 85 90 95
 Gly Asn Met Leu Val Val Leu Ile Leu Ile Asn Cys Lys Lys Leu Lys
 100 105 110
 Cys Leu Thr Asp Ile Tyr Leu Leu Asn Leu Ala Ile Ser Asp Leu Leu
 115 120 125
 Phe Leu Ile Thr Leu Pro Leu Trp Ala His Ser Ala Ala Asn Glu Trp
 130 135 140
 Val Phe Gly Asn Ala Met Cys Lys Leu Phe Thr Gly Leu Tyr His Ile
 145 150 155 160
 Gly Tyr Phe Gly Gly Ile Phe Phe Ile Ile Leu Leu Thr Ile Asp Arg
 165 170 175
 Tyr Leu Ala Ile Val His Ala Val Phe Ala Leu Arg Ala Arg Thr Val
 180 185 190
 Thr Phe Gly Val Ile Thr Ser Ile Ile Ile Trp Ala Leu Ala Ile Leu

195

200

205

Ala Ser Met Pro Gly Leu Tyr Phe Ser Lys Thr Gln Trp Glu Phe Thr
 210 215 220

His His Thr Cys Ser Leu His Phe Pro His Glu Ser Leu Arg Glu Trp
 225 230 235 240

Lys Leu Phe Gln Ala Leu Lys Leu Asn Leu Phe Gly Leu Val Leu Pro
 245 250 255

Leu Leu Val Met Ile Ile Cys Tyr Thr Gly Ile Ile Lys Ile Leu Leu
 260 265 270

Arg Arg Pro Asn Glu Lys Lys Ser Lys Ala Val Arg Leu Ile Phe Val
 275 280 285

Ile Met Ile Ile Phe Phe Leu Phe Trp Thr Pro Tyr Asn Leu Thr Ile
 290 295 300

Leu Ile Ser Val Phe Gln Asp Phe Leu Phe Thr His Glu Cys Glu Gln
 305 310 315 320

Ser Arg His Leu Asp Leu Ala Val Gln Val Thr Glu Val Ile Ala Tyr
 325 330 335

Thr His Cys Cys Val Asn Pro Val Ile Tyr Ala Phe Val Gly Glu Arg
 340 345 350

Phe Arg Lys Tyr Leu Arg Gln Leu Phe His Arg Arg Val Ala Val His
 355 360 365

Leu Val Lys Trp Leu Pro Phe Leu Ser Val Asp Arg Leu Glu Arg Val
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Ser Ser Thr Ser Pro Ser Thr Gly Glu His Glu Leu Ser Ala Gly Phe
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<211> 1200

<212> DNA

<213> Homo sapiens

<400> 124

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tccacatctc gttctcggtt taccagaaat accaacgaga gcggtgaaga agtcaccacc 180

ttttttgatt atgattacgg tgctccctgt cataaatttg acgtgaagca aattggggcc 240

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32985_ST25.txt

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His Lys Phe Asp Val Lys Gln Ile Gly Ala Gln Leu Leu Pro Pro Leu
 35 40 45

Tyr Ser Leu Val Phe Ile Phe Gly Phe Val Gly Asn Met Leu Val Val
 50 55 60

Leu Ile Leu Ile Asn Cys Lys Lys Leu Lys Cys Leu Thr Asp Ile Tyr
 65 70 75 80

Leu Leu Asn Leu Ala Ile Ser Asp Leu Leu Phe Leu Ile Thr Leu Pro
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Leu Trp Ala His Ser Ala Ala Asn Glu Trp Val Phe Gly Asn Ala Met
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Cys Lys Leu Phe Thr Gly Leu Tyr His Ile Gly Tyr Phe Gly Gly Ile

115

120

125

Phe Phe Ile Ile Leu Leu Thr Ile Asp Arg Tyr Leu Ala Ile val His
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 Ala val Phe Ala Leu Lys Ala Arg Thr Val Thr Phe Gly val val Thr
 145 150 155 160
 Ser val Ile Thr Trp Leu Val Ala Val Phe Ala Ser Val Pro Gly Ile
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 Ile Phe Thr Lys Cys Gln Lys Glu Asp Ser Val Tyr Val Cys Gly Pro
 180 185 190
 Tyr Phe Pro Arg Gly Trp Asn Asn Phe His Thr Ile Met Arg Asn Ile
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 210 215 220
 Ile Leu Lys Thr Leu Leu Arg Cys Arg Asn Glu Lys Lys Arg His Arg
 225 230 235 240
 Ala val Arg val Ile Phe Thr Ile Met Ile Val Tyr Phe Leu Phe Trp
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 Thr Pro Tyr Asn Ile Val Ile Leu Leu Asn Thr Phe Gln Glu Phe Phe
 260 265 270
 Gly Leu Ser Asn Cys Glu Ser Thr Ser Gln Leu Asp Gln Ala Thr Gln
 275 280 285
 val Thr Glu Thr Leu Gly Met Thr His Cys Cys Ile Asn Pro Ile Ile
 290 295 300
 Tyr Ala Phe val Gly Glu Lys Phe Arg Ser Leu Phe His Ile Ala Leu
 305 310 315 320
 Gly Cys Arg Ile Ala Pro Leu Gln Lys Pro Val Cys Gly Gly Pro Gly
 325 330 335
 Val Arg Pro Gly Lys Asn Val Lys Val Thr Thr Gln Gly Leu Leu Asp
 340 345 350
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 Gln Asp Lys Glu Gly Ala
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His Lys Phe Asp Val Lys Gln Ile Gly Ala Gln Leu Leu Pro Pro Leu
      35      40      45

Tyr Ser Leu Val Phe Ile Phe Gly Phe Val Gly Asn Met Leu Val Val
      50      55      60

Leu Ile Leu Ile Asn Cys Lys Lys Leu Lys Cys Leu Thr Asp Ile Tyr
      65      70      75      80

Leu Leu Asn Leu Ala Ile Ser Asp Leu Leu Phe Leu Ile Thr Leu Pro
      85      90      95

Leu Trp Ala His Ser Ala Ala Asn Glu Trp Val Phe Gly Asn Ala Met
      100      105      110

Cys Lys Leu Phe Thr Gly Leu Tyr His Ile Gly Tyr Phe Gly Gly Ile
      115      120      125

Phe Phe Ile Ile Leu Leu Thr Ile Asp Arg Tyr Leu Ala Ile Val His
      130      135      140

Ala Val Phe Ala Leu Lys Ala Arg Thr Val Thr Phe Gly Val Val Thr
      145      150      155      160

Ser Val Ile Thr Trp Leu Val Ala Val Phe Ala Ser Val Pro Gly Ile
      165      170      175

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

Tyr Phe Pro Arg Gly Trp Asn Asn Phe His Thr Ile Met Arg Asn Ile
      195      200      205

Leu Gly Leu Val Leu Pro Leu Leu Ile Met Val Ile Cys Tyr Ser Gly
      210      215      220

Ile Leu Lys Thr Leu Leu Arg Cys Arg Asn Glu Lys Lys Arg His Arg
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32985_ST25.txt

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Thr Pro Tyr Asn Ile Val Ile Leu Leu Asn Thr Phe Gln Glu Phe Phe
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Gly Leu Ser Asn Cys Glu Ser Thr Ser Gln Leu Asp Gln Ala Thr Gln
275 280 285

Val Thr Glu Thr Leu Gly Met Thr His Cys Cys Ile Asn Pro Ile Ile
290 295 300

Tyr Ala Phe Val Gly Glu Lys Phe Arg Arg Tyr Leu Ser Val Phe Phe
305 310 315 320

Arg Lys His Ile Thr Lys Arg Phe Cys Lys Gln Cys Pro Val Phe Tyr
325 330 335

Arg Glu Thr Val Asp Gly Val Thr Ser Thr Asn Thr Pro Ser Thr Gly
340 345 350

Glu Gln Glu Val Ser Ala Gly Leu
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His Lys Phe Asp Val Lys Gln Ile Gly Ala
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Gln

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35 40 45

Met Leu Val Ile Leu Ile Leu Ile Asn Cys Lys Arg Leu Lys Ser Met
50 55 60

Thr Asp Ile Tyr Leu Leu Asn Leu Ala Ile Ser Asp Leu Phe Phe Leu
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Leu Thr Val Pro Phe Trp Ala His Tyr Ala Ala Ala Gln Trp Asp Phe
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Gly Asn Thr Met Cys Gln Leu Leu Thr Gly Leu Tyr Phe Ile Gly Phe
100 105 110

Phe Ser Gly Ile Phe Phe Ile Ile Leu Leu Thr Ile Asp Arg Tyr Leu
115 120 125

Ala Val Val His Ala Val Phe Ala Leu Lys Ala Arg Thr Val Thr Phe
130 135 140

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Gly Val Val Thr Ser Val Ile Thr Trp Val Val Ala Val Phe Ala Ser
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165 170 175

Thr Cys Ser Ser His Phe Pro Tyr Ser Gln Tyr Gln Phe Trp Lys Asn
180 185 190

Phe Gln Thr Leu Lys Ile Val Ile Leu Gly Leu Val Leu Pro Leu Leu
195 200 205

Val Met Val Ile Cys Tyr Ser Gly Ile Leu Lys Thr Leu Leu Arg Cys
210 215 220

Arg Asn Glu Lys Lys Arg His Arg Ala Val Arg Leu Ile Phe Thr Ile
225 230 235 240

Met Ile Val Tyr Phe Leu Phe Trp Ala Pro Tyr Asn Ile Val Leu Leu
245 250 255

Leu Asn Thr Phe Gln Glu Phe Phe Gly Leu Asn Asn Cys Ser Ser Ser
260 265 270

Asn Arg Leu Asp Gln Ala Met Gln Val Thr Glu Thr Leu Gly Met Thr
275 280 285

His Cys Cys Ile Asn Pro Ile Ile Tyr Ala Phe Val Gly Glu Lys Phe
290 295 300

Arg Asn Tyr Leu Leu Val Phe Phe Gln Lys His Ile Ala Lys Arg Phe
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Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

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

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

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys

Ala Arg Glu Tyr Asn Trp Asn Tyr Ala Phe Asp Ile Trp Gly Gln Gly
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Thr Met Val Thr Val Ser Ser
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35 40 45

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

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
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Thr His Trp Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
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<400> 160

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

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

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

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Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
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Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
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Ala Arg Tyr Asn Trp Asn Tyr Ala Phe Asp Ile Trp Gly Gln Gly Thr
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Met Val Thr Val Ser Ser
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Glu Lys Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Gly Ser Ser
20 25 30

Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile
35 40 45

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala
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Glu Asp Ala Ala Thr Tyr Tyr Cys His Gln Ser Ser Ser Leu Pro Leu
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Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
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<400> 162

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

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

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

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

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

Val Thr Val Ser Ser
115

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Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
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Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Tyr
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Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
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 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
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 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Ile Ile Asn Pro Ser Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
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 Ala Arg Tyr Asn Trp Asn Tyr Ala Phe Asp Ile Trp Gly Gln Gly Thr
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 Met Val Thr Val Ser Ser
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<210> 165
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 165

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 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
 20 25 30
 Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35 40 45
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
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 Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
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 <211> 366
 <212> DNA
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<400> 167
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 <212> DNA
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<400> 174
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33

<210> 175
 <211> 449
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<400> 175

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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
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Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

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

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

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

Ala Arg Glu Arg Trp Tyr Lys Trp Asn Phe Asp Ala Phe Asp Ile Trp
 100 105 110

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
 115 120 125

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

Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
 145 150 155 160

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
 165 170 175

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
 180 185 190

Val Pro Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp

195 200 205
 His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr
 210 215 220
 Gly Pro Pro Cys Pro Ser Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro
 225 230 235 240
 Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
 245 250 255
 Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp
 260 265 270
 Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
 275 280 285
 Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val
 290 295 300
 Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
 305 310 315 320
 Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys
 325 330 335
 Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
 340 345 350
 Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr
 355 360 365
 Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
 370 375 380
 Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
 385 390 395 400
 Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu Thr Val Asp Lys
 405 410 415
 Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser Val Met His Glu
 420 425 430
 Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly
 435 440 445
 Lys

32985_ST25.txt

<210> 176
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 <212> PRT
 <213> Homo sapiens

<400> 176

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

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

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

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

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

Ala Arg Glu Arg Trp Tyr Lys Trp Asn Phe Asp Ala Phe Asp Ile Trp
 100 105 110

Gly Gln Gly Thr Met Val Thr Val Ser Ser
 115 120

<210> 177
 <211> 5
 <212> PRT
 <213> Homo sapiens

<400> 177

Ser Tyr Tyr Ile His
 1 5

<210> 178
 <211> 17
 <212> PRT
 <213> Homo sapiens

<400> 178

Met Ile Asn Pro Ser Gly Gly Pro Thr Ser Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 179
 <211> 13

32985_ST25.txt

<212> PRT
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<400> 179

Glu Arg Trp Tyr Lys Trp Asn Phe Asp Ala Phe Asp Ile
1 5 10

<210> 180
<211> 30
<212> PRT
<213> Homo sapiens

<400> 180

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> 181
<211> 14
<212> PRT
<213> Homo sapiens

<400> 181

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

<210> 182
<211> 32
<212> PRT
<213> Homo sapiens

<400> 182

Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr Met Asp
1 5 10 15

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

<210> 183
<211> 11
<212> PRT
<213> Homo sapiens

<400> 183

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
1 5 10

<210> 184
<211> 663
<212> DNA
<213> Homo sapiens

<400> 184

32985_ST25.txt

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tggtaccaac agaaaccagg acagcctcct aagctgctca tttactgggc atctacacgg	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcagcagcc agcaggctga agatgtggca gtttattact gtcagcaata ttacagtact	300
cctcggacgt tcggccaagg gaccaagggt gaaatcaaac gaactgtggc tgcaccatct	360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc	420
ctgctgaaga acttctatcc cagagaggcc aaagtacagt ggaagggtga taacgccctc	480
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc	540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc	600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt	660
tag	663

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 <211> 339
 <212> DNA
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<400> 185	
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tggtaccaac agaaaccagg acagcctcct aagctgctca tttactgggc atctacacgg	180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc	240
atcagcagcc agcaggctga agatgtggca gtttattact gtcagcaata ttacagtact	300
cctcggacgt tcggccaagg gaccaagggt gaaatcaaa	339

<210> 186
 <211> 51
 <212> DNA
 <213> Homo sapiens

<400> 186	
aagtccagcc agagtgtttt atacagctcc aacaataaga actacttagc t	51

<210> 187
 <211> 21
 <212> DNA
 <213> Homo sapiens

<400> 187	
tgggcatcta cacgggaatc c	21

<210> 188
 <211> 27
 <212> DNA
 <213> Homo sapiens

32985_ST25.txt

<400> 188
cagcaatatt acagtactcc tcggacg 27

<210> 189
<211> 69
<212> DNA
<213> Homo sapiens

<400> 189
gacatcgtga tgaccacgtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgc 69

<210> 190
<211> 45
<212> DNA
<213> Homo sapiens

<400> 190
tggtagcaac agaaaccagg acagcctcct aagctgctca ttac 45

<210> 191
<211> 96
<212> DNA
<213> Homo sapiens

<400> 191
ggggtccctg accgattcag tggcagcggg tctgggacag atttcactct caccatcagc 60
agccagcagg ctgaagatgt ggcagtttat tactgt 96

<210> 192
<211> 30
<212> DNA
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<400> 192
ttcgccaag ggaccaaggt ggaaatcaaa 30

<210> 193
<211> 220
<212> PRT
<213> Homo sapiens

<400> 193
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 Tyr Ser
20 25 30
Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

32985_ST25.txt

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

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

Tyr Tyr Ser Thr Pro Arg Thr Phe Gly Gln Gly Thr Lys Val Glu 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> 194
<211> 113
<212> PRT
<213> Homo sapiens

<400> 194

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 Tyr Ser
20 25 30

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

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

32985_ST25.txt
 Ile Ser Ser Gln Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95

Tyr Tyr Ser Thr Pro Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100 105 110

Lys

<210> 195
 <211> 17
 <212> PRT
 <213> Homo sapiens
 <400> 195

Lys Ser Ser Gln Ser Val Leu Tyr Ser Ser Asn Asn Lys Asn Tyr Leu
 1 5 10 15

Ala

<210> 196
 <211> 7
 <212> PRT
 <213> Homo sapiens
 <400> 196

Trp Ala Ser Thr Arg Glu Ser
 1 5

<210> 197
 <211> 9
 <212> PRT
 <213> Homo sapiens
 <400> 197

Gln Gln Tyr Tyr Ser Thr Pro Arg Thr
 1 5

<210> 198
 <211> 23
 <212> PRT
 <213> Homo sapiens
 <400> 198

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> 199
 <211> 15
 <212> PRT

<213> Homo sapiens

<400> 199

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

<210> 200

<211> 32

<212> PRT

<213> Homo sapiens

<400> 200

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 Gln Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys
20 25 30

<210> 201

<211> 10

<212> PRT

<213> Homo sapiens

<400> 201

Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
1 5 10

<210> 202

<211> 13

<212> PRT

<213> Homo sapiens

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<222> (1)..(1)

<223> X = E or D

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> X = Q, N, R, K or H

<220>

<221> MISC_FEATURE

<222> (3)..(3)

<223> X = A, G, W or Y

<220>

<221> MISC_FEATURE

<222> (5)..(5)

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<220>

<221> MISC_FEATURE

<222> (6)..(6)

<223> X = K, R, H, W, Y, T or S

<220>

<221> MISC_FEATURE

32985_ST25.txt

<222> (7)..(7)
<223> X = Y, W, N or Q

<220>
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<223> X = A, G or V

<400> 202

Xaa Xaa Xaa Tyr Xaa Xaa Xaa Phe Asp Xaa Phe Asp Ile
1 5 10

<210> 203
<211> 13
<212> PRT
<213> Homo sapiens

<220>
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<223> X = A or W

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<223> X = W or K

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<223> X = W or K

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<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> X = A or V

<400> 203

Xaa Xaa Xaa Tyr Xaa Xaa Xaa Phe Asp Xaa Phe Asp Ile
1 5 10