

56506WOPCT-seq1-000001
SEQUENCE LISTING

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<150> 62/079,942

<151> 2014-11-14

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<170> PatentIn version 3.5

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

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

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

Leu Ser Val Lys Ser Arg Ile Thr Ile Asn Pro Asp Thr Ser Lys Asn
65 70 75 80

Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
85 90 95

Tyr Tyr Cys Ala Arg Gly Glu Gly Tyr Gly Arg Glu Gly Phe Ala Ile
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
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<210> 8

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<212> DNA

<213> Artificial Sequence

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<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

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

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

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

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Leu Ser Val Lys Ser Arg Ile Thr Ile Asn Pro Asp Thr Ser Lys Asn
65 70 75 80

Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
85 90 95

Tyr Tyr Cys Ala Arg Gly Glu Gly Tyr Gly Arg Glu Gly Phe Ala Ile
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

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

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

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

Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
225 230 235 240

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
245 250 255

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
260 265 270

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

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

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
305 310 315 320

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

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

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

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

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

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
405 410 415

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
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Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
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Leu Ser Pro Gly Lys
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cagtcaccct ctaggggcct ggagtggctg ggtagaatct actataggtc taagtggat	180
aacgactacg ccctgagcgt gaagtctagg atcactatta acccgacac ctctaagaat	240
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cgggaggaga tgaccaagaa ccaggtgtcc ctgacctgtc tggatgaagg cttctacccc	1140
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 Arg Ala Ser Gln Thr Ile Ser Asn Thr Leu Ala
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<400> 12
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<400> 13
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Ser Gln Thr Ile Ser Asn Thr
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<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

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 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Asn Thr
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 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45
 Tyr Ala Ala Ser Asn 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 Tyr Leu Ser Trp Phe Thr
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 Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
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<210> 18

<211> 318

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 aggttttagcg gtagcggtag tggcaccgac ttcaccctga ctattagtag cctgcagccc 240
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Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Asn Thr
 20 25 30

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

Tyr Ala Ala Ser Asn 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 Tyr Leu Ser Trp Phe Thr
 85 90 95

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

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

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
 130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
 145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
 165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
 180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
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Asn Arg Gly Glu Cys
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gaggacttcg ctacctacta ctgtcagcag tacctgagct ggttcacctt cggtcagggc	300
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Gly

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Gly Tyr Thr Phe Thr Asp His

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<210> 26

<211> 9

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

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Ser Leu Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe Thr Asp His
20 25 30

Thr Ile His Trp Met Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
35 40 45

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

Lys Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95

Ala Arg Arg Asn Leu Phe Leu Pro Met Glu Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
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cccggtaaaag gcctggagtg gatgggctat atctacccta gatcaggctc tattaactat 180
aacgagaagt ttaagggtca ggtcacaatt agcgccgata agtctagctc taccgcctac 240
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<213> Artificial Sequence

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<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 29

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 Thr Phe Thr Asp His
 20 25 30

Thr Ile His Trp Met Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45

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

Lys Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
 85 90 95

Ala Arg Arg Asn Leu Phe Leu Pro Met Glu Tyr Trp Gly Gln Gly Thr
 100 105 110

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

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

Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
 145 150 155 160

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

Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
180 185 190

Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser
195 200 205

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

His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
225 230 235 240

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

Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
260 265 270

Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
275 280 285

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

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

Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
325 330 335

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

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

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

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

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

Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
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Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 435 440 445

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Arg	Ser	Ser	Gln	Ser	Leu	Leu	Ser	Ser	Gly	Asp	Gln	Lys	Asn	Tyr	Leu
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Thr

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Trp Ala Ser Thr Arg Glu Ser

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<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 33

Gln Asn Asp Tyr Arg Tyr Pro Leu Thr

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<210> 34

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<400> 34

Ser Gln Ser Leu Leu Ser Ser Gly Asp Gln Lys Asn Tyr

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Trp Ala Ser

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<223> /note="Description of Artificial Sequence: Synthetic peptide"

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Asp Tyr Arg Tyr Pro Leu

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<210> 37

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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 Arg Ser Ser Gln Ser Leu Leu Ser Ser

20 25 30

Gly Asp Gln Lys Asn Tyr Leu Thr Trp Tyr Leu Gln Lys Pro Gly Gln

35 40 45

Ser Pro Gln 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 Lys

65 70 75 80

Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Gln Asn

85 90 95

Asp Tyr Arg Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile

100

105

110

Lys

<210> 38

<211> 339

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 38

gatatcgtga tgactcagac cccctgagc ctgcccgtga cccctggcga gcctgcctct 60

attagctgta gatctagtca gtcactgctg tctagcggcg atcagaagaa ctacctgacc 120

tggtatctgc agaagcccgg tcagtcacct cagctgctga tctactgggc ctctactaga 180

gaatcaggcg tgcccgatag gtttagcggg agcggtagtg gcaccgactt caccctgaag 240

atctctaggg tggaagccga ggacgtgggc gtctactact gtcagaacga ctatagatac 300

cccctgacct tcggtcaggg cactaagctg gagattaag 339

<210> 39

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 39

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

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Ser Pro Gln 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 Lys
65 70 75 80

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

Asp Tyr Arg Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Leu 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> 40

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 40

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attagctgta gatctagtca gtcactgctg tctagcggcg atcagaagaa ctacctgacc	120
tggtatctgc agaagcccgg tcagtcacct cagctgctga tctactgggc ctctactaga	180
gaatcaggcg tgcccgatag gtttagcggg agcggtagtg gcaccgactt caccctgaag	240
atctctaggg tggaagccga ggacgtgggc gtctactact gtcagaacga ctatagatac	300
cccctgacct tcggtcaggg cactaagctg gagattaagc gtacggtggc cgctcccagc	360
gtgttcatct tccccccag cgacgagcag ctgaagagcg gcaccgccag cgtggtgtgc	420
ctgctgaaca acttctaccc ccgggaggcc aaggtgcagt ggaaggtgga caacgccctg	480
cagagcggca acagccagga gagcgtcacc gagcaggaca gcaaggactc cacctacagc	540
ctgagcagca ccctgaccct gagcaaggcc gactacgaga agcataaggt gtacgcctgc	600
gaggtgaccc accagggcct gtccagcccc gtgaccaaga gcttcaacag gggcgagtgc	660

<210> 41

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 41

Asp His Thr Ile His	
1	5

<210> 42

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 42

Tyr Ile Tyr Pro Arg Ser Gly Ser Ile Asn Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 43

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 43

Arg Asn Leu Phe Leu Pro Met Glu Tyr
1 5

<210> 44

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 44

Gly Tyr Thr Phe Thr Asp His
1 5

<210> 45

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 45

Tyr Pro Arg Ser Gly Ser

1

5

<210> 46

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 46

Arg Asn Leu Phe Leu Pro Met Glu Tyr

1

5

<210> 47

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 47

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 Thr Phe Thr Asp His

20

25

30

Thr Ile His Trp Met Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met

35

40

45

Gly Tyr Ile Tyr Pro Arg Ser Gly Ser Ile Asn Tyr Asn Glu Lys Phe

50

55

60

Lys Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ser Ser Thr Ala Tyr

65

70

75

80

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys

85

90

95

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Ala Arg Arg Asn Leu Phe Leu Pro Met Glu Tyr Trp Gly Gln Gly Thr
 100 105 110

Leu Val Thr Val Ser Ser
 115

<210> 48
 <211> 354
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 polynucleotide"

<400> 48
 gaggtgcagc tggtgcagtc aggcgccgaa gtgaagaagc ccggcgagtc actgaagatt 60
 agctgtaaag tctcaggcta caccttcacc gatcacacta ttcactggat gagacagatg 120
 cccggtaaag gcctggagtg gatgggctat atctacccta gatcaggctc tattaactat 180
 aacgagaagt ttaaggggtca ggtcacaatt agcgccgata agtctagctc taccgcctac 240
 ctgcagtggc ctagcctgaa ggctagtgac accgctatgt actactgcgc tagacgtaac 300
 ctgttcctgc ctatggaata ctgggggtcag ggcaccctgg tcaccgtgtc tagc 354

<210> 49
 <211> 448
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 49
 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 Thr Phe Thr Asp His
 20 25 30

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Thr Ile His Trp Met Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45

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

Lys Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
 85 90 95

Ala Arg Arg Asn Leu Phe Leu Pro Met Glu Tyr Trp Gly Gln Gly Thr
 100 105 110

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

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

Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
 145 150 155 160

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

Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
 180 185 190

Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser
 195 200 205

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

His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
 225 230 235 240

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

Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
 260 265 270

Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
 275 280 285

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

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

Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
 325 330 335

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

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

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

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

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

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

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

<210> 50

<211> 1344

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 50

gaggtgcagc tggtgcagtc aggcgccgaa gtgaagaagc ccggcgagtc actgaagatt	60
agctgtaaag tctcaggcta caccttcacc gatcacacta ttcactggat gagacagatg	120
cccggtaaag gcctggagtg gatgggctat atctacccta gatcaggctc tattaactat	180
aacgagaagt ttaagggtca ggtcacaatt agcgccgata agtctagctc taccgcctac	240
ctgcagtggc ctagcctgaa ggctagtgac accgctatgt actactgcgc tagacgtaac	300
ctgttcctgc ctatggaata ctggggctcag ggcaccctgg tcaccgtgtc tagcgctagc	360
actaagggcc caagtgtgtt tcccctggcc cccagcagca agtctacttc cggcggaact	420
gctgccctgg gttgcctggc gaaggactac ttccccgagc ccgtgacagt gtcctggaac	480
tctggggctc tgacttccgg cgtgcacacc ttccccgccg tgctgcagag cagcggcctg	540
tacagcctga gcagcgtggc gacagtgtcc tccagctctc tgggaacca gacctatctc	600
tgcaacgtga accacaagcc cagcaacacc aaggtggaca agagagtgga gcccaagagc	660
tgcgacaaga cccacacctg cccccctgc ccagctccag aactgctggg agggccttcc	720
gtgttcctgt tccccccaa gcccaaggac accctgatga tcagcaggac ccccgaggtg	780
acctgcgtgg tggtggacgt gtcccacgag gaccagagg tgaagttcaa ctggtacgtg	840
gacggcgtgg aggtgcacaa cgccaagacc aagcccagag aggagcagta caacagcacc	900
tacagggtgg tgtccgtgct gaccgtgctg caccaggact ggctgaacgg caaagaatac	960
aagtgcaaag tctccaacaa ggccctgcca gcccgaatcg aaaagacaat cagcaaggcc	1020
aagggccagc cacgggagcc ccaggtgtac accctgcccc ccagccggga ggagatgacc	1080
aagaaccagg tgtccctgac ctgtctggtg aagggttctt accccagcga tatcgccgtg	1140
gagtgaggaga gcaacggcca gcccgagaac aactacaaga ccaccccccc agtgctggac	1200
agcgacggca gcttcttctt gtacagcaag ctgaccgtgg acaagtccag gtggcagcag	1260

ggcaacgtgt tcagctgcag cgtgatgcac gaggccctgc acaaccacta caccagaag 1320
tccctgagcc tgagccccgg caag 1344

<210> 51
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 51
Arg Ser Ser Gln Ser Leu Leu Ser Ser Gly Asn Gln Lys Asn Tyr Leu
1 5 10 15

Thr

<210> 52
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 52
Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 53
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 53
Gln Asn Asp Tyr Ser Tyr Pro Leu Thr

1

5

<210> 54

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 54

Ser Gln Ser Leu Leu Ser Ser Gly Asn Gln Lys Asn Tyr

1

5

10

<210> 55

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 55

Trp Ala Ser

1

<210> 56

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 56

Asp Tyr Ser Tyr Pro Leu

1

5

<210> 57

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 57

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 Arg Ser Ser Gln Ser Leu Leu Ser Ser
 20 25 30

Gly Asn Gln Lys Asn Tyr Leu Thr Trp Tyr Leu Gln Lys Pro Gly Gln
 35 40 45

Ser Pro Gln 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 Lys
 65 70 75 80

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

Asp Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile
 100 105 110

Lys

<210> 58

<211> 339

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 58

gatatcgtga tgactcagac ccccctgagc ctgcccgtga cccctggcga gcctgcctct

60

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attagctgta gatctagtca gtcactgctg tctagcggta atcagaagaa ctacctgacc 120
 tggatatctgc agaagcccgg tcagtcacct cagctgctga tctactgggc ctctactaga 180
 gaatcaggcg tgcccgatag gtttagcggg agcggtagtg gcaccgactt caccctgaag 240
 atctctaggg tggaagccga ggacgtgggc gtctactact gtcagaacga ctatagctac 300
 cccctgacct tcggtcaggg cactaagctg gagattaag 339

<210> 59

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 59

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 Arg Ser Ser Gln Ser Leu Leu Ser Ser
 20 25 30

Gly Asn Gln Lys Asn Tyr Leu Thr Trp Tyr Leu Gln Lys Pro Gly Gln
 35 40 45

Ser Pro Gln 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 Lys
 65 70 75 80

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

Asp Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Leu 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> 60

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 60

gatatcgtga tgactcagac ccccctgagc ctgcccgtga cccctggcga gcctgcctct	60
attagctgta gatctagtca gtcactgctg tctagcggta atcagaagaa ctacctgacc	120
tggtatctgc agaagcccgg tcagtcacct cagctgctga tctactgggc ctctactaga	180
gaatcaggcg tgcccgatag gtttagcggt agcggtagtg gcaccgactt caccctgaag	240
atctctaggg tggaagccga ggacgtgggc gtctactact gtcagaacga ctatagctac	300
cccctgacct tcggtcaggg cactaagctg gagattaagc gtacgggtggc cgctcccagc	360
gtgttcatct tccccccag cgacgagcag ctgaagagcg gcaccgccag cgtggtgtgc	420
ctgctgaaca acttctaccc ccgggaggcc aaggtgcagt ggaaggtgga caacgccctg	480

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cagagcggca acagccagga gagcgtcacc gagcaggaca gcaaggactc cacctacagc 540
 ctgagcagca ccctgaccct gagcaaggcc gactacgaga agcataaggt gtacgcctgc 600
 gaggtgaccc accagggcct gtccagcccc gtgaccaaga gcttcaacag gggcgagtgc 660

<210> 61
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 61
 Asp His Thr Leu His
 1 5

<210> 62
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 62
 Tyr Ile Tyr Pro Arg Ser Gly Ser Thr Lys Tyr Asn Glu Asn Phe Arg
 1 5 10 15

Gly

<210> 63
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 63

Arg Leu Leu Phe Leu Pro Leu Asp Tyr
1 5

<210> 64

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 64

Gly Tyr Thr Phe Thr Asp His
1 5

<210> 65

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 65

Tyr Pro Arg Ser Gly Ser
1 5

<210> 66

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 66

Arg Leu Leu Phe Leu Pro Leu Asp Tyr
1 5

<210> 67

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 67

Gln Ile 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 Val Ser Gly Tyr Thr Phe Thr Asp His
 20 25 30

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

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

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

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

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

Leu Val Thr Val Ser Ser
 115

<210> 68

<211> 354

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 68

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cagattcagc	tggtgcagtc	aggcgccgaa	gtgaagaaac	ccggctctag	cgtgaaagtc	60
agctgtaaaag	tctcaggcta	caccttcacc	gatcacaccc	tgactggat	gagacaggcc	120
ccaggtcagg	gcctggagtg	gatgggctat	atctacccta	gatcaggctc	tactaagtat	180
aacgagaact	ttaggggtag	agtgactatc	accgccgaca	ctagctctag	caccgcctat	240
atggaactgt	ctagcctgag	atcagaggac	accgccgtct	actactgcgc	tagacggctg	300
ctgttcctgc	ccctggacta	ctgggggtcag	ggcacccctgg	tcaccgtgtc	tagc	354

<210> 69

<211> 448

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 69

Gln	Ile	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	Val	Ser	Gly	Tyr	Thr	Phe	Thr	Asp	His
		20					25					30			

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

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

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

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

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

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

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

Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
 145 150 155 160

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

Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
 180 185 190

Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser
 195 200 205

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

His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
 225 230 235 240

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

Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
 260 265 270

Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
 275 280 285

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

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

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Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
325 330 335

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

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

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

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

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

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

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

<210> 70

<211> 1344

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 70

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agctgtaaag tctcaggcta caccttcacc gatcacaccc tgcactggat gagacaggcc 120

ccaggtcagg gcctggagtg gatgggctat atctacccta gatcaggctc tactaagtat 180

aacgagaact ttaggggtag agtgactatc accgccgaca ctagctctag caccgcctat 240

atggaactgt ctagcctgag atcagaggac accgccgtct actactgcgc tagacggctg 300

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ctgttcctgc ccctggacta ctgggggtcag ggcaccctgg tcaccgtgtc tagcgctagc	360
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gctgccctgg gttgcctggt gaaggactac ttccccgagc ccgtgacagt gtcctggaac	480
tctggggctc tgacttccgg cgtgcacacc ttccccgccg tgctgcagag cagcggcctg	540
tacagcctga gcagcgtggt gacagtgtccc tccagctctc tgggaacca gacctatc	600
tgcaacgtga accacaagcc cagcaacacc aaggtggaca agagagtgga gccaagagc	660
tgcgacaaga cccacacctg cccccctgc ccagctccag aactgctggg agggccttcc	720
gtgttcctgt tccccccaa gcccaaggac accctgatga tcagcaggac ccccgaggtg	780
acctgcgtgg tgggtggacgt gtcccacgag gaccagagg tgaagttcaa ctggtacgtg	840
gacggcgtgg aggtgcacaa cgccaagacc aagcccagag aggagcagta caacagcacc	900
tacagggtgg tgtccgtgct gaccgtgctg caccaggact ggctgaacgg caaagaatac	960
aagtgcaaag tctccaaca ggccctgcc gcccgaatcg aaaagacaat cagcaaggcc	1020
aagggccagc cacgggagcc ccaggtgtac accctgcccc ccagccggga ggagatgacc	1080
aagaaccagg tgtccctgac ctgtctggtg aagggcttct accccagcga tatcgccgtg	1140
gagtgggaga gcaacggcca gcccgagaac aactacaaga ccaccccccc agtgctggac	1200
agcgacggca gcttcttct gtacagcaag ctgaccgtgg acaagtccag gtggcagcag	1260
ggcaacgtgt tcagctgcag cgtgatgcac gaggccctgc acaaccacta caccagaag	1320
tccctgagcc tgagccccgg caag	1344

<210> 71

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 71

Arg	Ser	Ser	Gln	Ser	Leu	Leu	Ser	Ser	Gly	Asn	Gln	Lys	Ser	Tyr	Leu
1				5					10					15	

Thr

<210> 72

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 72

Trp Ala Ser Thr Arg Glu Ser

1 5

<210> 73

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 73

Gln Asn Asp Tyr Ser Tyr Pro Phe Thr

1 5

<210> 74

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 74

Ser Gln Ser Leu Leu Ser Ser Gly Asn Gln Lys Ser Tyr

1 5 10

<210> 75

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 75

Trp Ala Ser

1

<210> 76

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 76

Asp Tyr Ser Tyr Pro Phe

1

5

<210> 77

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 77

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

1

5

10

15

Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Ser Leu Leu Ser Ser

20

25

30

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

35

40

45

Ala Pro Arg Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Ile

50

55

60

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

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

Asp Tyr Ser Tyr Pro Phe Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile
 100 105 110

Lys

<210> 78

<211> 339

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polynucleotide"

<400> 78

gagatcgtga tgactcagtc acccgctacc ctgagcctga gccctggcga gagagctaca 60

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tggtatcagc agaagcccgg tcaggcccct agactgctga tctactgggc ctctactaga 180

gagtcaggga tccccgctag gtttagcggg agcggtagtg gcaccgactt caccctgact 240

atctctagcc tgcagcccga ggacttcgcc gtctactact gtcagaacga ctatagctac 300

cccttcacct tcggtcaggg cactaagctg gagattaag 339

<210> 79

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

56506WOPCT-seq1-000001

<400> 79

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

Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Ser Leu Leu Ser Ser
 20 25 30

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

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

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

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

Asp Tyr Ser Tyr Pro Phe Thr Phe Gly Gln Gly Thr Lys Leu 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> 80
 <211> 660
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 polynucleotide"

<400> 80
 gagatcgtga tgactcagtc acccgctacc ctgagcctga gccctggcga gagagctaca 60
 ctgagctgta gatctagtca gtcactgctg tctagcggta atcagaagtc ctacctgacc 120
 tggatatcagc agaagcccgg tcaggcccct agactgctga tctactgggc ctctactaga 180
 gagtcagggga tccccgctag gtttagcggg agcggtagtg gcaccgactt caccctgact 240
 atctctagcc tgcagcccga ggacttcgcc gtctactact gtcagaacga ctatagctac 300
 cccttcacct tcggtcaggg cactaagctg gagattaagc gtacgggtggc cgctcccagc 360
 gtgttcatct tcccccccag cgacgagcag ctgaagagcg gcaccgccag cgtggtgtgc 420
 ctgctgaaca acttctaccc ccgggaggcc aaggtgcagt ggaaggtgga caacgccctg 480
 cagagcggca acagccagga gagcgtcacc gagcaggaca gcaaggactc cacctacagc 540
 ctgagcagca ccctgaccct gagcaaggcc gactacgaga agcataaggt gtacgcctgc 600
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<210> 81
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 peptide"

<400> 81
 Asp His Thr Leu His

1

5

<210> 82

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 82

Tyr Ile Tyr Pro Arg Ser Gly Ser Thr Lys Tyr Asn Glu Asn Phe Arg
 1 5 10 15

Gly

<210> 83

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 83

Arg Leu Leu Phe Leu Pro Leu Asp Tyr
 1 5

<210> 84

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 84

Gly Tyr Thr Phe Thr Asp His
 1 5

<210> 85

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 85

Tyr Pro Arg Ser Gly Ser

1 5

<210> 86

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 86

Arg Leu Leu Phe Leu Pro Leu Asp Tyr

1 5

<210> 87

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 87

Gln Ile 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 Val Ser Gly Tyr Thr Phe Thr Asp His

20 25 30

Thr Leu His Trp Met Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met

35 40 45

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

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

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

Val Arg Arg Leu Leu Phe Leu Pro Leu Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 88
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 88
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agctgtaaag tctcaggcta caccttcacc gatcacaccc tgcactggat gagacaggcc 120
ccaggtcagg gcctggagtg gatgggctat atctacccta gatcaggctc tactaagtat 180
aacgagaact ttaggggtag agtgactatc accgccgaca ctagctctag caccgcctat 240
atggaactgt ctagcctgag atcagaggac accgccgtct actactgcgt cagacggctg 300
ctgttcctgc ccctggacta ctggggctcag ggcaccctgg tcaccgtgtc tagc 354

<210> 89
<211> 448
<212> PRT
<213> Artificial Sequence

<220>
<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 89

Gln Ile 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 Val Ser Gly Tyr Thr Phe Thr Asp His
20 25 30

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

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

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

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

Val Arg Arg Leu Leu Phe Leu Pro Leu Asp Tyr Trp Gly Gln Gly Thr
100 105 110

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

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

Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
145 150 155 160

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

Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
180 185 190

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Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser
 195 200 205

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

His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
 225 230 235 240

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

Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
 260 265 270

Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
 275 280 285

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

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

Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
 325 330 335

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

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

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

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

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

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

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

<210> 90

<211> 1344

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polynucleotide"

<400> 90

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agctgtaaag tctcaggcta caccttcacc gatcacaccc tgcactggat gagacaggcc	120
ccaggtcagg gcctggagtg gatgggctat atctacccta gatcaggctc tactaagtat	180
aacgagaact ttaggggtag agtgactatc accgccgaca ctagctctag caccgcctat	240
atggaactgt ctagcctgag atcagaggac accgccgtct actactgcgt cagacggctg	300
ctgttcctgc ccctggacta ctgggggtcag ggcaccctgg tcaccgtgtc tagcgctagc	360
actaagggcc caagtgtgtt tcccctggcc cccagcagca agtctacttc cggcgggaact	420
gctgccctgg gttgcctggt gaaggactac ttccccgagc ccgtgacagt gtcctggaac	480
tctggggctc tgacttccgg cgtgcacacc ttccccgccg tgctgcagag cagcggcctg	540
tacagcctga gcagcgtggt gacagtggcc tccagctctc tgggaacca gacctatctc	600
tgcaacgtga accacaagcc cagcaacacc aaggtggaca agagagtgga gccaagagc	660
tgcgacaaga cccacacctg cccccctgc ccagctccag aactgctggg agggccttcc	720
gtgttcctgt tccccccaa gcccaaggac accctgatga tcagcaggac ccccgagggtg	780
acctgcgtgg tgggtggacgt gtcccacgag gaccagagg tgaagttcaa ctggtacgtg	840
gacggcgtgg aggtgcacaa cgccaagacc aagcccagag aggagcagta caacagcacc	900

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tacagggtgg tgtccgtgct gaccgtgctg caccaggact ggctgaacgg caaagaatac 960
aagtgcaaag tctccaacaa ggccctgcca gcccgaatcg aaaagacaat cagcaaggcc 1020
aagggccagc cacgggagcc ccaggtgtac accctgcccc ccagccggga ggagatgacc 1080
aagaaccagg tgtccctgac ctgtctggtg aagggttctt accccagcga tatcgccgtg 1140
gagtgggaga gcaacggcca gcccgagaac aactacaaga ccaccccccc agtgctggac 1200
agcgacggca gcttcttcct gtacagcaag ctgaccgtgg acaagtccag gtggcagcag 1260
ggcaacgtgt tcagctgcag cgtgatgcac gaggccctgc acaaccacta caccagaag 1320
tccctgagcc tgagccccgg caag 1344

<210> 91

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 91

Arg	Ser	Ser	Gln	Ser	Leu	Leu	Ser	Ser	Gly	Asn	Gln	Lys	Ser	Tyr	Leu
1				5					10					15	

Thr

<210> 92

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 92

Trp	Ala	Ser	Thr	Arg	Glu	Ser
1				5		

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

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 peptide"

<400> 93
 Gln Asn Asp Tyr Ser Tyr Pro Phe Thr
 1 5

<210> 94
 <211> 13
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 peptide"

<400> 94
 Ser Gln Ser Leu Leu Ser Ser Gly Asn Gln Lys Ser Tyr
 1 5 10

<210> 95
 <211> 3
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 peptide"

<400> 95
 Trp Ala Ser
 1

<210> 96
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source

56506WOPCT-seq1-000001

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 96

Asp Tyr Ser Tyr Pro Phe
1 5

<210> 97

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 97

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

Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Ser Leu Leu Ser Ser
20 25 30

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

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

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

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

Asp Tyr Ser Tyr Pro Phe Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile
100 105 110

Lys

<210> 98

<211> 339

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 98

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ctgagctgta gatctagtca gtcactgctg tctagcggta atcagaagtc ctacctgacc 120

tggtatcagc agaagcccgg tcaggcccct agactgctga tctactgggc ctctactaga 180

gagtcagggga tccccgctag gtttagcggg agcggtagtgc gcaccgactt caccctgact 240

atctctagcc tgcagcccga ggacttcgcc gtctactact gtcagaacga ctatagctac 300

cccttcacct tcggtcaggg cactaagctg gagattaag 339

<210> 99

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 99

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

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

Asp Tyr Ser Tyr Pro Phe Thr Phe Gly Gln Gly Thr Lys Leu 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> 100

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 100

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ctgagctgta gatctagtca gtcactgctg tctagcggta atcagaagtc ctacctgacc 120

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tggtatcagc agaagcccgg tcaggcccct agactgctga tctactgggc ctctactaga	180
gagtcaggga tccccgctag gtttagcggg agcggtagtg gcaccgactt caccctgact	240
atctctagcc tgcagcccga ggacttcgcc gtctactact gtcagaacga ctatagctac	300
cccttcacct tcggtcaggg cactaagctg gagattaagc gtacgggtggc cgctcccagc	360
gtgttcatct tcccccccag cgacgagcag ctgaagagcg gcaccgccag cgtggtgtgc	420
ctgctgaaca acttctaccc ccgggaggcc aaggtgcagt ggaaggtgga caacgccctg	480
cagagcggca acagccagga gagcgtcacc gagcaggaca gcaaggactc cacctacagc	540
ctgagcagca ccctgaccct gagcaaggcc gactacgaga agcataaggt gtacgcctgc	600
gaggtgaccc accagggcct gtccagcccc gtgaccaaga gcttcaacag gggcgagtgc	660

<210> 101

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 101

Asp His Thr Leu His

1	5
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<210> 102

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 102

Tyr Ile Tyr Pro Arg Ser Gly Ser Thr Lys Tyr Asn Glu Asn Phe Lys

1	5	10	15
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Gly

<210> 103
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 103
 Arg Leu Leu Phe Leu Pro Leu Asp Tyr
 1 5

<210> 104
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 104
 Gly Tyr Thr Phe Thr Asp His
 1 5

<210> 105
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 105
 Tyr Pro Arg Ser Gly Ser
 1 5

<210> 106
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 106

Arg Leu Leu Phe Leu Pro Leu Asp Tyr
 1 5

<210> 107

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 107

Gln Ile 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 Val Ser Gly Tyr Thr Phe Thr Asp His
 20 25 30

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

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

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

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

Val Arg Arg Leu Leu Phe Leu Pro Leu Asp Tyr Trp Gly Gln Gly Thr
 100 105 110

Leu Val Thr Val Ser Ser
 115

<210> 108
 <211> 354
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 108
 cagattcagc tggtagcagtc aggcgccgaa gtgaagaaac ccggctctag cgtgaaagtc 60
 agctgtaaaag tctcaggcta caccttcacc gatcacaccc tgcactggat gagacaggcc 120
 ccaggtcagg gcctggagtg gatgggctat atctacccta gatcaggctc tactaagtat 180
 aacgagaact ttaagggtag agtgactatc accgccgaca ctagctctag caccgcctat 240
 atggaactgt ctagcctgag atcagaggac accgccgtct actactgcgt cagacggctg 300
 ctgttcctgc ccctggacta ctggggtcag ggcaccctgg tcaccgtgtc tagc 354

<210> 109
 <211> 448
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 109
 Gln Ile 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 Val Ser Gly Tyr Thr Phe Thr Asp His
 20 25 30

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

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

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

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

Val Arg Arg Leu Leu Phe Leu Pro Leu Asp Tyr Trp Gly Gln Gly Thr
100 105 110

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

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

Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
145 150 155 160

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

Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
180 185 190

Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser
195 200 205

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

His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
225 230 235 240

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

Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
260 265 270

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Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
 275 280 285

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

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

Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
 325 330 335

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

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

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

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

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

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

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

<210> 110

<211> 1344

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

polynucleotide"

<400> 110

cagattcagc	tggtgcagtc	aggcgccgaa	gtgaagaaac	ccggctctag	cgtgaaagtc	60
agctgtaaag	tctcaggcta	caccttcacc	gatcacaccc	tgactggat	gagacaggcc	120
ccaggtcagg	gcctggagt	gatgggctat	atctacccta	gatcaggctc	tactaagtat	180
aacgagaact	ttaagggtag	agtgactatc	accgccgaca	ctagctctag	caccgcctat	240
atggaactgt	ctagcctgag	atcagaggac	accgccgtct	actactgcgt	cagacggctg	300
ctgttcctgc	ccctggacta	ctggggtcag	ggcaccctgg	tcaccgtgtc	tagcgctagc	360
actaagggcc	caagtgtgtt	tcccctggcc	cccagcagca	agtctacttc	cggcggaact	420
gctgccctgg	gttgctggt	gaaggactac	ttccccgagc	ccgtgacagt	gtcctggaac	480
tctggggctc	tgacttccgg	cgtgcacacc	ttccccgccg	tgctgcagag	cagcggcctg	540
tacagcctga	gcagcgtggt	gacagtgtcc	tccagctctc	tgggaacca	gacctatctc	600
tgcaacgtga	accacaagcc	cagcaacacc	aaggtggaca	agagagtgga	gccaagagc	660
tgcgacaaga	cccacacctg	ccccccctgc	ccagctccag	aactgctggg	agggccttcc	720
gtgttcctgt	ttccccccaa	gccaaggac	accctgatga	tcagcaggac	ccccgaggtg	780
acctgcgtgg	tggtggacgt	gtccacagag	gaccagagg	tgaagttcaa	ctggtacgtg	840
gacggcgtgg	aggtgcacaa	cgccaagacc	aagcccagag	aggagcagta	caacagcacc	900
tacaggggtg	tgtccgtgct	gaccgtgctg	caccaggact	ggctgaacgg	caaagaatac	960
aagtgaaaag	tctccaacaa	ggccctgcca	gccccaatcg	aaaagacaat	cagcaaggcc	1020
aagggccagc	cacgggagcc	ccaggtgtac	accctgcccc	ccagccggga	ggagatgacc	1080
aagaaccagg	tgtccctgac	ctgtctggtg	aagggttctt	accccagcga	tatcgccgtg	1140
gagtgggaga	gcaacggcca	gcccgagaac	aactacaaga	ccaccccccc	agtgtggac	1200
agcgacggca	gtttcttctt	gtacagcaag	ctgaccgtgg	acaagtccag	gtggcagcag	1260
ggcaacgtgt	tcagctgcag	cgtgatgcac	gaggccctgc	acaaccacta	caccagaag	1320
tccctgagcc	tgagccccgg	caag				1344

<210> 111

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 111

Arg	Ser	Ser	Gln	Ser	Leu	Leu	Ser	Ser	Gly	Asn	Gln	Lys	Ser	Tyr	Leu
1				5					10					15	

Thr

<210> 112

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 112

Trp	Ala	Ser	Thr	Arg	Glu	Ser
1				5		

<210> 113

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 113

Gln	Asn	Asp	Tyr	Ser	Tyr	Pro	Phe	Thr
1				5				

<210> 114

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 114

Ser Gln Ser Leu Leu Ser Ser Gly Asn Gln Lys Ser Tyr
1 5 10

<210> 115

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 115

Trp Ala Ser
1

<210> 116

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 116

Asp Tyr Ser Tyr Pro Phe
1 5

<210> 117

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 117

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

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

Lys

<210> 118
 <211> 339
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 118	
gagatcgtga tgactcagtc acccgctacc ctgagcctga gccctggcga gagagctaca	60
ctgagctgta gatctagtca gtcactgctg tctagcggta atcagaagtc ctacctgacc	120
tggtatcagc agaagcccgg tcaggcccct agactgctga tctactgggc ctctactaga	180
gagtcaggga tccccgctag gtttagcggg agcggtagtg gcaccgactt caccctgact	240
atctctagcc tgcagcccga ggacttcgcc gtctactact gtcagaacga ctatagctac	300

cccttcacct tcggtcaggg cactaagctg gagattaag

<210> 119

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 119

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

Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Ser Leu Leu Ser Ser
20 25 30

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

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

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

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

Asp Tyr Ser Tyr Pro Phe Thr Phe Gly Gln Gly Thr Lys Leu 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> 120

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polynucleotide"

<400> 120

gagatcgtga tgactcagtc acccgctacc ctgagcctga gccctggcga gagagctaca	60
ctgagctgta gatctagtca gtcactgctg tctagcggta atcagaagtc ctacctgacc	120
tggtatcagc agaagcccgg tcaggcccct agactgctga tctactgggc ctctactaga	180
gagtcaggga tccccgctag gtttagcggg agcggtagtg gcaccgactt caccctgact	240
atctctagcc tgcagcccga ggacttcgcc gtctactact gtcagaacga ctatagctac	300
cccttcacct tcggtcaggg cactaagctg gagattaagc gtacgggtggc cgctcccagc	360
gtgttcatct tccccccag cgacgagcag ctgaagagcg gcaccgccag cgtggtgtgc	420
ctgctgaaca acttctaccc ccgggaggcc aaggtgcagt ggaaggtgga caacgccctg	480
cagagcggca acagccagga gagcgtcacc gagcaggaca gcaaggactc cacctacagc	540
ctgagcagca ccctgaccct gagcaaggcc gactacgaga agcataaggt gtacgcctgc	600
gaggtgaccc accagggcct gtccagcccc gtgaccaaga gcttcaacag gggcgagtgc	660

<210> 121

<211> 829

<212> PRT

<213> Homo sapiens

<400> 121

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

Cys Trp Leu Gln Cys Ala Ala Ser Glu Pro Cys Arg Ala Val Phe Arg
 20 25 30

Glu Ala Glu Val Thr Leu Glu Ala Gly Gly Ala Glu Gln Glu Pro Gly
 35 40 45

Gln Ala Leu Gly Lys Val Phe Met Gly Cys Pro Gly Gln Glu Pro Ala
 50 55 60

Leu Phe Ser Thr Asp Asn Asp Asp Phe Thr Val Arg Asn Gly Glu Thr
 65 70 75 80

Val Gln Glu Arg Arg Ser Leu Lys Glu Arg Asn Pro Leu Lys Ile Phe
 85 90 95

Pro Ser Lys Arg Ile Leu Arg Arg His Lys Arg Asp Trp Val Val Ala
 100 105 110

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

Asn Gln Leu Lys Ser Asn Lys Asp Arg Asp Thr Lys Ile Phe Tyr Ser
 130 135 140

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

Glu Lys Glu Thr Gly Trp Leu Leu Leu Asn Lys Pro Leu Asp Arg Glu
 165 170 175

Glu Ile Ala Lys Tyr Glu Leu Phe Gly His Ala Val Ser Glu Asn Gly
 180 185 190

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Ala Ser Val Glu Asp Pro Met Asn Ile Ser Ile Ile Val Thr Asp Gln
 195 200 205

Asn Asp His Lys Pro Lys Phe Thr Gln Asp Thr Phe Arg Gly Ser Val
 210 215 220

Leu Glu Gly Val Leu Pro Gly Thr Ser Val Met Gln Val Thr Ala Thr
 225 230 235 240

Asp Glu Asp Asp Ala Ile Tyr Thr Tyr Asn Gly Val Val Ala Tyr Ser
 245 250 255

Ile His Ser Gln Glu Pro Lys Asp Pro His Asp Leu Met Phe Thr Ile
 260 265 270

His Arg Ser Thr Gly Thr Ile Ser Val Ile Ser Ser Gly Leu Asp Arg
 275 280 285

Glu Lys Val Pro Glu Tyr Thr Leu Thr Ile Gln Ala Thr Asp Met Asp
 290 295 300

Gly Asp Gly Ser Thr Thr Thr Ala Val Ala Val Val Glu Ile Leu Asp
 305 310 315 320

Ala Asn Asp Asn Ala Pro Met Phe Asp Pro Gln Lys Tyr Glu Ala His
 325 330 335

Val Pro Glu Asn Ala Val Gly His Glu Val Gln Arg Leu Thr Val Thr
 340 345 350

Asp Leu Asp Ala Pro Asn Ser Pro Ala Trp Arg Ala Thr Tyr Leu Ile
 355 360 365

Met Gly Gly Asp Asp Gly Asp His Phe Thr Ile Thr Thr His Pro Glu
 370 375 380

Ser Asn Gln Gly Ile Leu Thr Thr Arg Lys Gly Leu Asp Phe Glu Ala
 385 390 395 400

Lys Asn Gln His Thr Leu Tyr Val Glu Val Thr Asn Glu Ala Pro Phe
 405 410 415

Val Leu Lys Leu Pro Thr Ser Thr Ala Thr Ile Val Val His Val Glu
 420 425 430

Asp Val Asn Glu Ala Pro Val Phe Val Pro Pro Ser Lys Val Val Glu
 435 440 445

Val Gln Glu Gly Ile Pro Thr Gly Glu Pro Val Cys Val Tyr Thr Ala
 450 455 460

Glu Asp Pro Asp Lys Glu Asn Gln Lys Ile Ser Tyr Arg Ile Leu Arg
 465 470 475 480

Asp Pro Ala Gly Trp Leu Ala Met Asp Pro Asp Ser Gly Gln Val Thr
 485 490 495

Ala Val Gly Thr Leu Asp Arg Glu Asp Glu Gln Phe Val Arg Asn Asn
 500 505 510

Ile Tyr Glu Val Met Val Leu Ala Met Asp Asn Gly Ser Pro Pro Thr
 515 520 525

Thr Gly Thr Gly Thr Leu Leu Leu Thr Leu Ile Asp Val Asn Asp His
 530 535 540

Gly Pro Val Pro Glu Pro Arg Gln Ile Thr Ile Cys Asn Gln Ser Pro
 545 550 555 560

Val Arg Gln Val Leu Asn Ile Thr Asp Lys Asp Leu Ser Pro His Thr
 565 570 575

Ser Pro Phe Gln Ala Gln Leu Thr Asp Asp Ser Asp Ile Tyr Trp Thr
 580 585 590

Ala Glu Val Asn Glu Glu Gly Asp Thr Val Val Leu Ser Leu Lys Lys
 595 600 605

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Phe Leu Lys Gln Asp Thr Tyr Asp Val His Leu Ser Leu Ser Asp His
 610 615 620

Gly Asn Lys Glu Gln Leu Thr Val Ile Arg Ala Thr Val Cys Asp Cys
 625 630 635 640

His Gly His Val Glu Thr Cys Pro Gly Pro Trp Lys Gly Gly Phe Ile
 645 650 655

Leu Pro Val Leu Gly Ala Val Leu Ala Leu Leu Phe Leu Leu Leu Val
 660 665 670

Leu Leu Leu Leu Val Arg Lys Lys Arg Lys Ile Lys Glu Pro Leu Leu
 675 680 685

Leu Pro Glu Asp Asp Thr Arg Asp Asn Val Phe Tyr Tyr Gly Glu Glu
 690 695 700

Gly Gly Gly Glu Glu Asp Gln Asp Tyr Asp Ile Thr Gln Leu His Arg
 705 710 715 720

Gly Leu Glu Ala Arg Pro Glu Val Val Leu Arg Asn Asp Val Ala Pro
 725 730 735

Thr Ile Ile Pro Thr Pro Met Tyr Arg Pro Arg Pro Ala Asn Pro Asp
 740 745 750

Glu Ile Gly Asn Phe Ile Ile Glu Asn Leu Lys Ala Ala Asn Thr Asp
 755 760 765

Pro Thr Ala Pro Pro Tyr Asp Thr Leu Leu Val Phe Asp Tyr Glu Gly
 770 775 780

Ser Gly Ser Asp Ala Ala Ser Leu Ser Ser Leu Thr Ser Ser Ala Ser
 785 790 795 800

Asp Gln Asp Gln Asp Tyr Asp Tyr Leu Asn Glu Trp Gly Ser Arg Phe
 805 810 815

Lys Lys Leu Ala Asp Met Tyr Gly Gly Gly Glu Asp Asp
 820 825

<210> 122

<211> 822

<212> PRT

<213> Rattus norvegicus

<400> 122

Met Glu Leu Leu Ser Gly Pro Leu Val Phe Leu Leu Leu Leu Gln
 1 5 10 15

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

Ile Arg Glu Ala Gly Val Thr Leu Glu Val Gly Gly Thr Asp Leu Glu
 35 40 45

Pro Ser Gln Ala Leu Glu Lys Glu Ala Leu Ala Gly His Glu Val Leu
 50 55 60

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

Gly Gly Lys Gly Val Met Asn Ser Pro Pro Ser Arg Ile Leu Arg Arg
 85 90 95

Arg Lys Arg Glu Trp Val Met Pro Pro Ile Ser Val Pro Glu Asn Gly
 100 105 110

Lys Gly Pro Phe Pro Gln Arg Leu Asn Gln Leu Lys Ser Asn Lys Asp
 115 120 125

Arg Gly Thr Lys Leu Phe Tyr Ser Ile Thr Gly Pro Gly Ala Asp Ser
 130 135 140

Pro Pro Glu Gly Val Phe Thr Ile Glu Lys Glu Thr Gly Trp Leu Leu
 145 150 155 160

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Leu Asn Met Pro Leu Asp Arg Glu Lys Ile Val Lys Tyr Glu Leu Phe
 165 170 175

Gly His Ala Val Ser Glu Asn Gly Ala Ser Val Glu Glu Pro Met Asn
 180 185 190

Ile Ser Ile Ile Val Thr Asp Gln Asn Asp Asn Lys Pro Lys Phe Thr
 195 200 205

Gln Asp Thr Phe Arg Gly Ser Val Pro Glu Gly Val Met Pro Gly Thr
 210 215 220

Ser Val Met Gln Val Thr Ala Thr Asp Glu Asp Asp Ala Ile Asn Thr
 225 230 235 240

Tyr Asn Gly Val Val Ala Tyr Ser Ile His Ser Gln Glu Pro Lys Glu
 245 250 255

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

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

Thr Ile Gln Ala Thr Asp Met Asp Gly Asp Gly Ser Thr Thr Thr Ala
 290 295 300

Glu Ala Val Val Gln Ile Leu Asp Thr Asn Asp Asn Ala Pro Glu Phe
 305 310 315 320

Gln Pro Gln Lys Tyr Glu Ala Trp Val Pro Glu Asn Ala Val Gly His
 325 330 335

Glu Val Gln Arg Leu Thr Val Thr Asp Leu Asp Ser Pro Asn Ser Pro
 340 345 350

Ala Trp Arg Ala Thr Tyr His Ile Val Gly Gly Asp Asp Gly Asp His
 355 360 365

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Phe Thr Val Ala Thr His Pro Glu Thr Asn Gln Gly Ile Leu Thr Thr
 370 375 380

Lys Lys Gly Leu Asp Phe Glu Ala Gln Asn Gln His Thr Leu Tyr Ile
 385 390 395 400

Glu Val Thr Asn Glu Ala Ser Phe Ala Val Lys Leu Pro Thr Ala Thr
 405 410 415

Ala Thr Val Val Val His Val Glu Asp Val Asn Glu Ala Pro Val Phe
 420 425 430

Val Pro Pro Ser Lys Val Ile Glu Ala Gln Glu Gly Ile Ser Ile Gly
 435 440 445

Glu Leu Val Cys Val Tyr Thr Ala Gln Asp Pro Asp Lys Glu Glu Gln
 450 455 460

Lys Ile Ser Tyr Ser Ile Leu Arg Asp Pro Ala Ser Trp Leu Ala Val
 465 470 475 480

Asp Pro Asp Ser Gly Gln Ile Thr Ala Ala Gly Ile Leu Asp Arg Glu
 485 490 495

Asp Glu Gln Phe Val Lys Asn Asp Ile Tyr Glu Val Met Val Leu Ala
 500 505 510

Thr Asp Asn Gly Asn Pro Pro Thr Thr Gly Thr Gly Thr Leu Leu Leu
 515 520 525

Thr Leu Thr Asp Ile Asn Asp His Gly Pro Ile Pro Glu Pro Arg Gln
 530 535 540

Ile Ile Ile Cys Asn Gln Ser Pro Val Pro Gln Val Leu Asn Ile Thr
 545 550 555 560

Asp Lys Asp Leu Ser Pro Asn Ser Ser Pro Phe Gln Ala Gln Leu Thr
 565 570 575

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His Asp Ser Asp Ile Tyr Trp Met Ala Glu Val Ser Glu Lys Gly Asp
 580 585 590

Thr Val Ala Leu Ser Leu Lys Lys Phe Leu Lys Gln Asp Thr Tyr Asp
 595 600 605

Leu His Leu Ser Leu Ser Asp His Gly Asn Arg Glu Gln Leu Thr Met
 610 615 620

Ile Arg Ala Thr Val Cys Asp Cys His Gly Gln Val Leu Asn Asp Cys
 625 630 635 640

Pro Arg Pro Trp Lys Gly Gly Phe Ile Leu Pro Val Leu Gly Ala Val
 645 650 655

Leu Ala Leu Leu Thr Leu Leu Leu Ala Leu Leu Leu Leu Val Arg Lys
 660 665 670

Lys Arg Lys Val Lys Glu Pro Leu Leu Leu Pro Glu Asp Asp Thr Arg
 675 680 685

Asp Asn Val Phe Tyr Tyr Gly Glu Glu Gly Gly Gly Glu Glu Asp Gln
 690 695 700

Asp Tyr Asp Ile Thr Gln Leu His Arg Gly Leu Glu Ala Arg Pro Glu
 705 710 715 720

Val Val Leu Arg Asn Asp Val Ala Pro Thr Phe Ile Pro Thr Pro Met
 725 730 735

Tyr Arg Pro Arg Pro Ala Asn Pro Asp Glu Ile Gly Asn Phe Ile Ile
 740 745 750

Glu Asn Leu Lys Ala Ala Asn Thr Asp Pro Thr Ala Pro Pro Tyr Asp
 755 760 765

Ser Leu Leu Val Phe Asp Tyr Glu Gly Ser Gly Ser Asp Ala Ala Ser
 770 775 780

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Leu Ser Ser Leu Thr Ser Ser Thr Ser Asp Gln Asp Gln Asp Tyr Asn
785 790 795 800

Tyr Leu Thr Glu Trp Gly Ser Arg Phe Lys Lys Leu Ala Asp Met Tyr
805 810 815

Gly Gly Gly Glu Asp Asp
820

<210> 123

<211> 822

<212> PRT

<213> Mus musculus

<400> 123

Met Glu Leu Leu Ser Gly Pro His Ala Phe Leu Leu Leu Leu Leu Gln
1 5 10 15

Val Cys Trp Leu Arg Ser Val Val Ser Glu Pro Tyr Arg Ala Gly Phe
20 25 30

Ile Gly Glu Ala Gly Val Thr Leu Glu Val Glu Gly Thr Asp Leu Glu
35 40 45

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

His Ala Asp Asn Gly Asp Ile Ile Met Leu Thr Arg Gly Thr Val Gln
65 70 75 80

Gly Gly Lys Asp Ala Met His Ser Pro Pro Thr Arg Ile Leu Arg Arg
85 90 95

Arg Lys Arg Glu Trp Val Met Pro Pro Ile Phe Val Pro Glu Asn Gly
100 105 110

Lys Gly Pro Phe Pro Gln Arg Leu Asn Gln Leu Lys Ser Asn Lys Asp
115 120 125

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

Pro Pro Glu Gly Val Phe Thr Ile Glu Lys Glu Ser Gly Trp Leu Leu
 145 150 155 160

Leu His Met Pro Leu Asp Arg Glu Lys Ile Val Lys Tyr Glu Leu Tyr
 165 170 175

Gly His Ala Val Ser Glu Asn Gly Ala Ser Val Glu Glu Pro Met Asn
 180 185 190

Ile Ser Ile Ile Val Thr Asp Gln Asn Asp Asn Lys Pro Lys Phe Thr
 195 200 205

Gln Asp Thr Phe Arg Gly Ser Val Leu Glu Gly Val Met Pro Gly Thr
 210 215 220

Ser Val Met Gln Val Thr Ala Thr Asp Glu Asp Asp Ala Val Asn Thr
 225 230 235 240

Tyr Asn Gly Val Val Ala Tyr Ser Ile His Ser Gln Glu Pro Lys Glu
 245 250 255

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

Val Ile Ser Ser Gly Leu Asp Arg Glu Lys Val Pro Glu Tyr Arg Leu
 275 280 285

Thr Val Gln Ala Thr Asp Met Asp Gly Glu Gly Ser Thr Thr Thr Ala
 290 295 300

Glu Ala Val Val Gln Ile Leu Asp Ala Asn Asp Asn Ala Pro Glu Phe
 305 310 315 320

Glu Pro Gln Lys Tyr Glu Ala Trp Val Pro Glu Asn Glu Val Gly His
 325 330 335

Glu Val Gln Arg Leu Thr Val Thr Asp Leu Asp Val Pro Asn Ser Pro
 340 345 350

Ala Trp Arg Ala Thr Tyr His Ile Val Gly Gly Asp Asp Gly Asp His
 355 360 365

Phe Thr Ile Thr Thr His Pro Glu Thr Asn Gln Gly Val Leu Thr Thr
 370 375 380

Lys Lys Gly Leu Asp Phe Glu Ala Gln Asp Gln His Thr Leu Tyr Val
 385 390 395 400

Glu Val Thr Asn Glu Ala Pro Phe Ala Val Lys Leu Pro Thr Ala Thr
 405 410 415

Ala Thr Val Val Val His Val Lys Asp Val Asn Glu Ala Pro Val Phe
 420 425 430

Val Pro Pro Ser Lys Val Ile Glu Ala Gln Glu Gly Ile Ser Ile Gly
 435 440 445

Glu Leu Val Cys Ile Tyr Thr Ala Gln Asp Pro Asp Lys Glu Asp Gln
 450 455 460

Lys Ile Ser Tyr Thr Ile Ser Arg Asp Pro Ala Asn Trp Leu Ala Val
 465 470 475 480

Asp Pro Asp Ser Gly Gln Ile Thr Ala Ala Gly Ile Leu Asp Arg Glu
 485 490 495

Asp Glu Gln Phe Val Lys Asn Asn Val Tyr Glu Val Met Val Leu Ala
 500 505 510

Thr Asp Ser Gly Asn Pro Pro Thr Thr Gly Thr Gly Thr Leu Leu Leu
 515 520 525

Thr Leu Thr Asp Ile Asn Asp His Gly Pro Ile Pro Glu Pro Arg Gln
 530 535 540

Ile Ile Ile Cys Asn Gln Ser Pro Val Pro Gln Val Leu Asn Ile Thr
 545 550 555 560

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Asp Lys Asp Leu Ser Pro Asn Ser Ser Pro Phe Gln Ala Gln Leu Thr
565 570 575

His Asp Ser Asp Ile Tyr Trp Met Ala Glu Val Ser Glu Lys Gly Asp
580 585 590

Thr Val Ala Leu Ser Leu Lys Lys Phe Leu Lys Gln Asp Thr Tyr Asp
595 600 605

Leu His Leu Ser Leu Ser Asp His Gly Asn Arg Glu Gln Leu Thr Met
610 615 620

Ile Arg Ala Thr Val Cys Asp Cys His Gly Gln Val Phe Asn Asp Cys
625 630 635 640

Pro Arg Pro Trp Lys Gly Gly Phe Ile Leu Pro Ile Leu Gly Ala Val
645 650 655

Leu Ala Leu Leu Thr Leu Leu Leu Ala Leu Leu Leu Leu Val Arg Lys
660 665 670

Lys Arg Lys Val Lys Glu Pro Leu Leu Leu Pro Glu Asp Asp Thr Arg
675 680 685

Asp Asn Val Phe Tyr Tyr Gly Glu Glu Gly Gly Glu Glu Asp Gln
690 695 700

Asp Tyr Asp Ile Thr Gln Leu His Arg Gly Leu Glu Ala Arg Pro Glu
705 710 715 720

Val Val Leu Arg Asn Asp Val Val Pro Thr Phe Ile Pro Thr Pro Met
725 730 735

Tyr Arg Pro Arg Pro Ala Asn Pro Asp Glu Ile Gly Asn Phe Ile Ile
740 745 750

Glu Asn Leu Lys Ala Ala Asn Thr Asp Pro Thr Ala Pro Pro Tyr Asp
755 760 765

Ser Leu Leu Val Phe Asp Tyr Glu Gly Ser Gly Ser Asp Ala Ala Ser
770 775 780

Leu Ser Ser Leu Thr Thr Ser Ala Ser Asp Gln Asp Gln Asp Tyr Asn
785 790 795 800

Tyr Leu Asn Glu Trp Gly Ser Arg Phe Lys Lys Leu Ala Asp Met Tyr
805 810 815

Gly Gly Gly Glu Asp Asp
820

<210> 124

<211> 595

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 124

Met Lys Phe Leu Val Asn Val Ala Leu Val Phe Met Val Val Tyr Ile
1 5 10 15

Ser Tyr Ile Tyr Ala Asp His Gln Thr Ser Leu Tyr Lys Lys Ala Gly
20 25 30

Phe Glu Gly Asp Arg Thr Asp Trp Val Val Ala Pro Ile Ser Val Pro
35 40 45

Glu Asn Gly Lys Gly Pro Phe Pro Gln Arg Leu Asn Gln Leu Lys Ser
50 55 60

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

Ala Asp Ser Pro Pro Glu Gly Val Phe Ala Val Glu Lys Glu Thr Gly
85 90 95

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

Glu Leu Phe Gly His Ala Val Ser Glu Asn Gly Ala Ser Val Glu Asp
 115 120 125

Pro Met Asn Ile Ser Ile Ile Val Thr Asp Gln Asn Asp His Lys Pro
 130 135 140

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

Pro Gly Thr Ser Val Met Gln Val Thr Ala Thr Asp Glu Asp Asp Ala
 165 170 175

Ile His Thr Tyr Asn Gly Val Val Ala Tyr Ser Ile His Ser Gln Glu
 180 185 190

Pro Lys Asp Pro His Asp Leu Met Phe Thr Ile His Arg Ser Thr Gly
 195 200 205

Thr Ile Ser Val Ile Ser Ser Gly Leu Asp Arg Glu Lys Val Pro Glu
 210 215 220

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

Thr Thr Ala Val Ala Val Val Glu Ile Leu Asp Ala Asn Asp Asn Ala
 245 250 255

Pro Val Phe Asp Pro Gln Lys Tyr Glu Ser His Val Pro Glu Asn Ala
 260 265 270

Val Gly His Glu Val Gln Arg Leu Thr Val Thr Asp Leu Asp Ala Pro
 275 280 285

Asn Ser Pro Ala Trp Arg Ala Thr Tyr Leu Ile Val Gly Gly Asp Asp
 290 295 300

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Gly Asp His Phe Thr Ile Ala Thr His Pro Glu Ser Asn Gln Gly Ile
305 310 315 320

Leu Thr Thr Arg Lys Gly Leu Asp Phe Glu Ala Lys Asn Gln His Thr
325 330 335

Leu Tyr Val Glu Val Thr Asn Glu Ala Pro Phe Val Leu Lys Leu Pro
340 345 350

Thr Ser Thr Ala Thr Ile Val Val His Val Glu Asp Val Asn Glu Ala
355 360 365

Pro Val Phe Val Pro Pro Ser Lys Val Val Glu Val Gln Glu Gly Ile
370 375 380

Pro Thr Gly Glu Ala Val Cys Val Tyr Thr Ala Lys Asp Pro Asp Lys
385 390 395 400

Glu Asn Gln Lys Ile Ser Tyr Arg Ile Leu Arg Asp Pro Ala Gly Trp
405 410 415

Leu Ala Met Asp Pro Asp Ser Gly Gln Val Thr Val Ala Gly Thr Leu
420 425 430

Asp Arg Glu Asp Glu Arg Phe Val Arg Asn Asn Ile Tyr Glu Val Met
435 440 445

Val Leu Ala Val Asp Asn Gly Ser Pro Pro Thr Thr Gly Thr Gly Thr
450 455 460

Leu Leu Leu Thr Leu Ile Asp Val Asn Asp His Gly Pro Val Pro Glu
465 470 475 480

Pro Arg Glu Ile Thr Ile Cys Asn Gln Ser Pro Glu Ser Gln Val Leu
485 490 495

Asn Ile Thr Asp Lys Asp Leu Ser Pro His Thr Ser Pro Phe Gln Ala
500 505 510

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Gln Leu Thr Asp Asp Ser Asp Ile Tyr Trp Met Ala Glu Val Asn Glu
515 520 525

Lys Asp Asp Thr Val Val Leu Ser Leu Lys Lys Phe Leu Lys Gln Asp
530 535 540

Thr Tyr Asp Val His Leu Ser Leu Ser Asp His Gly Asn Lys Glu Gln
545 550 555 560

Leu Thr Val Ile Arg Ala Thr Val Cys Asp Cys His Gly His Val Glu
565 570 575

Lys Cys Pro Asp Pro Trp Lys Gly Gly Gly Ala His His His His His
580 585 590

His Gly Ala
595

<210> 125

<211> 595

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 125

Met Lys Phe Leu Val Asn Val Ala Leu Val Phe Met Val Val Tyr Ile
1 5 10 15

Ser Tyr Ile Tyr Ala Asp His Gln Thr Ser Leu Tyr Lys Lys Ala Gly
20 25 30

Phe Glu Gly Asp Arg Thr Asp Trp Val Val Ala Pro Ile Ser Val Pro
35 40 45

Glu Asn Gly Lys Gly Pro Phe Pro Gln Arg Leu Asn Gln Leu Lys Ser
50 55 60

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

Ala Asp Ser Pro Pro Glu Gly Val Phe Ala Val Glu Lys Glu Thr Gly
85 90 95

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

Glu Leu Phe Gly His Ala Val Ser Glu Asn Gly Ala Ser Val Glu Asp
115 120 125

Pro Met Asn Ile Ser Ile Ile Val Thr Asp Gln Asn Asp His Lys Pro
130 135 140

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

Pro Gly Thr Ser Val Met Gln Val Thr Ala Thr Asp Glu Asp Asp Ala
165 170 175

Ile His Thr Tyr Asn Gly Val Val Ala Tyr Ser Ile His Ser Gln Glu
180 185 190

Pro Lys Asp Pro His Asp Leu Met Phe Thr Ile His Arg Ser Thr Gly
195 200 205

Thr Ile Ser Val Ile Ser Ser Gly Leu Asp Arg Glu Lys Val Pro Glu
210 215 220

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

Thr Thr Ala Val Ala Val Val Glu Ile Leu Asp Ala Asn Asp Asn Ala
245 250 255

Pro Val Phe Asp Pro Gln Lys Tyr Glu Ser His Val Pro Glu Asn Ala
260 265 270

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Val Gly His Glu Val Gln Arg Leu Thr Val Thr Asp Leu Asp Ala Pro
 275 280 285

Asn Ser Pro Ala Trp Arg Ala Thr Tyr Leu Ile Val Gly Gly Asp Asp
 290 295 300

Gly Asp His Phe Thr Ile Ala Thr His Pro Glu Ser Asn Gln Gly Ile
 305 310 315 320

Leu Thr Thr Arg Lys Gly Leu Asp Phe Glu Ala Lys Asn Gln His Thr
 325 330 335

Leu Tyr Val Glu Val Thr Asn Glu Ala Pro Phe Val Leu Lys Leu Pro
 340 345 350

Thr Ser Thr Ala Thr Ile Val Val His Val Glu Asp Val Asn Glu Ala
 355 360 365

Pro Val Phe Val Pro Pro Ser Lys Val Val Glu Val Gln Glu Gly Ile
 370 375 380

Pro Thr Gly Glu Ala Val Cys Val Tyr Thr Ala Lys Asp Pro Asp Lys
 385 390 395 400

Glu Asn Gln Lys Ile Ser Tyr Arg Ile Leu Arg Asp Pro Ala Gly Trp
 405 410 415

Leu Ala Met Asp Pro Asp Ser Gly Gln Val Thr Val Ala Gly Thr Leu
 420 425 430

Asp Arg Glu Asp Glu Arg Phe Val Arg Asn Asn Ile Tyr Glu Val Met
 435 440 445

Val Leu Ala Val Asp Asn Gly Ser Pro Pro Thr Thr Gly Thr Gly Thr
 450 455 460

Leu Leu Leu Thr Leu Ile Asp Val Asn Asp His Gly Pro Val Pro Glu
 465 470 475 480

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Pro Arg Glu Ile Thr Ile Cys Asn Gln Ser Pro Glu Ser Gln Val Leu
485 490 495

Asn Ile Thr Asp Lys Asp Leu Ser Pro His Thr Ser Pro Phe Gln Ala
500 505 510

Gln Leu Thr Asp Asp Ser Asp Ile Tyr Trp Met Ala Glu Val Asn Glu
515 520 525

Lys Asp Asp Thr Val Val Leu Ser Leu Lys Lys Phe Leu Lys Gln Gly
530 535 540

Thr Tyr Asp Val His Leu Ser Leu Ser Asp His Gly Asn Lys Glu Gln
545 550 555 560

Leu Thr Val Ile Arg Ala Thr Val Cys Asp Cys His Gly His Val Glu
565 570 575

Lys Cys Pro Asp Pro Trp Lys Gly Gly Gly Ala His His His His His
580 585 590

His Gly Ala
595

<210> 126

<211> 829

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 126

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

Cys Trp Leu Gln Cys Ala Ala Ser Glu Pro Cys Arg Ala Val Phe Arg
20 25 30

Glu Ala Glu Val Thr Leu Glu Ala Gly Gly Ala Glu Gln Glu Pro Gly

35

40

45

Gln Ala Leu Gly Lys Val Phe Met Gly Cys Pro Gly Gln Glu Pro Ala
 50 55 60

Leu Phe Ser Thr Asp Asn Asp Asp Phe Thr Val Arg Asn Gly Glu Thr
 65 70 75 80

Val Gln Glu Arg Arg Ser Leu Lys Glu Arg Asn Pro Leu Lys Ile Phe
 85 90 95

Pro Ser Lys Arg Ile Leu Arg Arg His Lys Arg Asp Trp Val Val Ala
 100 105 110

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

Asn Gln Leu Lys Ser Asn Lys Asp Arg Asp Thr Lys Ile Phe Tyr Ser
 130 135 140

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

Glu Lys Glu Thr Gly Trp Leu Leu Leu Asn Lys Pro Leu Asp Arg Glu
 165 170 175

Glu Ile Ala Lys Tyr Glu Leu Phe Gly His Ala Val Ser Glu Asn Gly
 180 185 190

Ala Ser Val Glu Asp Pro Met Asn Ile Ser Ile Ile Val Thr Asp Gln
 195 200 205

Asn Asp His Lys Pro Lys Phe Thr Gln Asp Thr Phe Arg Gly Ser Val
 210 215 220

Leu Glu Gly Val Leu Pro Gly Thr Ser Val Met Gln Val Thr Ala Thr
 225 230 235 240

Asp Glu Asp Asp Ala Ile Tyr Thr Tyr Asn Gly Val Val Ala Tyr Ser

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245

250

255

Ile His Ser Gln Glu Pro Lys Asp Pro His Asp Leu Met Phe Thr Ile
 260 265 270

His Arg Ser Thr Gly Thr Ile Ser Val Ile Ser Ser Gly Leu Asp Arg
 275 280 285

Glu Lys Val Pro Glu Tyr Thr Leu Thr Ile Gln Ala Thr Asp Met Asp
 290 295 300

Gly Asp Gly Ser Thr Thr Thr Ala Val Ala Val Val Glu Ile Leu Asp
 305 310 315 320

Ala Asn Asp Asn Ala Pro Met Phe Asp Pro Gln Lys Tyr Glu Ala His
 325 330 335

Val Pro Glu Asn Ala Val Gly His Glu Val Gln Arg Leu Thr Val Thr
 340 345 350

Asp Leu Asp Ala Pro Asn Ser Pro Ala Trp Arg Ala Thr Tyr Leu Ile
 355 360 365

Met Gly Gly Asp Asp Gly Asp His Phe Thr Ile Thr Thr His Pro Glu
 370 375 380

Ser Asn Gln Gly Ile Leu Thr Thr Arg Lys Gly Leu Asp Phe Glu Ala
 385 390 395 400

Lys Asn Gln His Thr Leu Tyr Val Glu Val Thr Asn Glu Ala Pro Phe
 405 410 415

Val Leu Lys Leu Pro Thr Ser Thr Ala Thr Ile Val Val His Val Glu
 420 425 430

Asp Val Asn Glu Ala Pro Val Phe Val Pro Pro Ser Lys Val Val Glu
 435 440 445

Val Gln Glu Gly Ile Pro Thr Gly Glu Pro Val Cys Val Tyr Thr Ala

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450

455

460

Glu Asp Pro Asp Lys Glu Asn Gln Lys Ile Ser Tyr Arg Ile Leu Arg
 465 470 475 480

Asp Pro Ala Gly Trp Leu Ala Met Asp Pro Asp Ser Gly Gln Val Thr
 485 490 495

Ala Val Gly Thr Leu Asp Arg Glu Asp Glu Gln Phe Val Arg Asn Asn
 500 505 510

Ile Tyr Glu Val Met Val Leu Ala Met Asp Asn Gly Ser Pro Pro Thr
 515 520 525

Thr Gly Thr Gly Thr Leu Leu Leu Thr Leu Ile Asp Val Asn Asp His
 530 535 540

Gly Pro Val Pro Glu Pro Arg Gln Ile Thr Ile Cys Asn Gln Ser Pro
 545 550 555 560

Val Arg Gln Val Leu Asn Ile Thr Asp Lys Asp Leu Ser Pro His Thr
 565 570 575

Ser Pro Phe Gln Ala Gln Leu Thr Asp Asp Ser Asp Ile Tyr Trp Thr
 580 585 590

Ala Glu Val Asn Glu Glu Gly Asp Thr Val Val Leu Ser Leu Lys Lys
 595 600 605

Phe Leu Lys Gln Asp Thr Tyr Asp Val His Leu Ser Leu Ser Asp His
 610 615 620

Gly Asn Lys Glu Gln Leu Thr Val Ile Arg Ala Thr Val Cys Asp Cys
 625 630 635 640

His Gly His Val Glu Thr Cys Pro Gly Pro Trp Lys Gly Gly Phe Ile
 645 650 655

Leu Pro Val Leu Gly Ala Val Leu Ala Leu Leu Phe Leu Leu Leu Val

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660

665

670

Leu Leu Leu Leu Val Arg Lys Lys Arg Lys Ile Lys Glu Pro Leu Leu
 675 680 685

Leu Pro Glu Asp Asp Thr Arg Asp Asn Val Phe Tyr Tyr Gly Glu Glu
 690 695 700

Gly Gly Gly Glu Glu Asp Gln Asp Tyr Asp Ile Thr Gln Leu His Arg
 705 710 715 720

Gly Leu Glu Ala Arg Pro Glu Val Val Leu Arg Asn Asp Val Ala Pro
 725 730 735

Thr Ile Ile Pro Thr Pro Met Tyr Arg Pro Arg Pro Ala Asn Pro Asp
 740 745 750

Glu Ile Gly Asn Phe Ile Ile Glu Asn Leu Lys Ala Ala Asn Thr Asp
 755 760 765

Pro Thr Ala Pro Pro Tyr Asp Thr Leu Leu Val Phe Asp Tyr Glu Gly
 770 775 780

Ser Gly Ser Asp Ala Ala Ser Leu Ser Ser Leu Thr Ser Ser Ala Ser
 785 790 795 800

Asp Gln Asp Gln Asp Tyr Asp Tyr Leu Asn Glu Trp Gly Ser Arg Phe
 805 810 815

Lys Lys Leu Ala Asp Met Tyr Gly Gly Gly Glu Asp Asp
 820 825

<210> 127

<211> 219

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 127

Gly Pro Asp Trp Val Val Ala Pro Ile Ser Val Pro Glu Asn Gly Lys
 1 5 10 15

Gly Pro Phe Pro Gln Arg Leu Asn Gln Leu Lys Ser Asn Lys Asp Arg
 20 25 30

Asp Thr Lys Ile Phe Tyr Ser Ile Thr Gly Pro Gly Ala Asp Ser Pro
 35 40 45

Pro Glu Gly Val Phe Ala Val Glu Lys Glu Thr Gly Trp Leu Leu Leu
 50 55 60

Asn Lys Pro Leu Asp Arg Glu Glu Ile Ala Lys Tyr Glu Leu Phe Gly
 65 70 75 80

His Ala Val Ser Glu Asn Gly Ala Ser Val Glu Asp Pro Met Asn Ile
 85 90 95

Ser Ile Ile Val Thr Asp Gln Asn Asp His Lys Pro Lys Phe Thr Gln
 100 105 110

Asp Thr Phe Arg Gly Ser Val Leu Glu Gly Val Leu Pro Gly Thr Ser
 115 120 125

Val Met Gln Val Thr Ala Thr Asp Glu Asp Asp Ala Ile Tyr Thr Tyr
 130 135 140

Asn Gly Val Val Ala Tyr Ser Ile His Ser Gln Glu Pro Lys Asp Pro
 145 150 155 160

His Asp Leu Met Phe Thr Ile His Arg Ser Thr Gly Thr Ile Ser Val
 165 170 175

Ile Ser Ser Gly Leu Asp Arg Glu Lys Val Pro Glu Tyr Thr Leu Thr
 180 185 190

Ile Gln Ala Thr Asp Met Asp Gly Asp Gly Ser Thr Thr Thr Ala Val
 195 200 205

Ala Val Val Glu Ile Leu Asp Ala Asn Asp Asn
 210 215

<210> 128

<211> 244

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 128

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

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

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

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

Leu Ser Val Lys Ser Arg Ile Thr Ile Asn Pro Asp Thr Ser Lys Asn
 65 70 75 80

Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
 85 90 95

Tyr Tyr Cys Ala Arg Gly Glu Gly Tyr Gly Arg Glu Gly Phe Ala Ile
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
 115 120 125

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

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

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

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

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

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

Ser Glu Phe Asp Tyr Lys Asp Asp Asp Asp Lys Gly Ala Pro His His
225 230 235 240

His His His His

<210> 129

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 129

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 Arg Ala Ser Gln Thr Ile Ser Asn Thr
20 25 30

Leu Ala 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 Asn 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 Tyr Leu Ser Trp Phe Thr
85 90 95

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

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

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165 170 175

Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala
180 185 190

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
195 200 205

Asn Arg Gly Glu Ala
210

<210> 130

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

6xHis tag"

<400> 130

His His His His His His
1 5

<210> 131

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 131

Arg Gly Asp Ser
1

<210> 132

<211> 22

<212> PRT

<213> Human immunodeficiency virus

<400> 132

Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Leu Tyr Arg Ser Pro
1 5 10 15Ala Met Pro Glu Asn Leu
20

<210> 133

<211> 101

<212> PRT

<213> Homo sapiens

<400> 133

Asp Trp Val Val Ala Pro Ile Ser Val Pro Glu Asn Gly Lys Gly Pro
1 5 10 15Phe Pro Gln Arg Leu Asn Gln Leu Lys Ser Asn Lys Asp Arg Asp Thr
20 25 30Lys Ile Phe Tyr Ser Ile Thr Gly Pro Gly Ala Asp Ser Pro Pro Glu
35 40 45

Gly Val Phe Ala Val Glu Lys Glu Thr Gly Trp Leu Leu Leu Asn Lys
50 55 60

Pro Leu Asp Arg Glu Glu Ile Ala Lys Tyr Glu Leu Phe Gly His Ala
65 70 75 80

Val Ser Glu Asn Gly Ala Ser Val Glu Asp Pro Met Asn Ile Ser Ile
85 90 95

Ile Val Thr Asp Gln
100

<210> 134

<211> 101

<212> PRT

<213> Macaca fascicularis

<400> 134

Asp Trp Val Val Ala Pro Ile Ser Val Pro Glu Asn Gly Lys Gly Pro
1 5 10 15

Phe Pro Gln Arg Leu Asn Gln Leu Lys Ser Asn Lys Asp Arg Asp Thr
20 25 30

Lys Ile Phe Tyr Ser Ile Thr Gly Pro Gly Ala Asp Ser Pro Pro Glu
35 40 45

Gly Val Phe Ala Val Glu Lys Glu Thr Gly Trp Leu Leu Leu Asn Lys
50 55 60

Pro Leu Asp Arg Glu Glu Ile Ala Lys Tyr Glu Leu Phe Gly His Ala
65 70 75 80

Val Ser Glu Asn Gly Ala Ser Val Glu Asp Pro Met Asn Ile Ser Ile
85 90 95

Ile Val Thr Asp Gln
100

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<210> 135

<211> 59

<212> PRT

<213> Homo sapiens

<400> 135

Cys Pro Glu Asn Glu Lys Gly Pro Phe Pro Lys Asn Leu Val Gln Ile
1 5 10 15

Lys Ser Asn Lys Asp Lys Glu Gly Lys Val Phe Tyr Ser Ile Thr Gly
20 25 30

Gln Gly Ala Asp Thr Pro Pro Val Gly Val Phe Ile Ile Glu Arg Glu
35 40 45

Thr Gly Trp Leu Lys Val Thr Glu Pro Leu Asp
50 55

<210> 136

<211> 59

<212> PRT

<213> Homo sapiens

<400> 136

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

Arg Ser Asp Arg Asp Lys Asn Leu Ser Leu Arg Tyr Ser Val Thr Gly
20 25 30

Pro Gly Ala Asp Gln Pro Pro Thr Gly Ile Phe Ile Ile Asn Pro Ile
35 40 45

Ser Gly Gln Leu Ser Val Thr Lys Pro Leu Asp
50 55

<210> 137

<211> 59

<212> PRT

<213> Homo sapiens

<400> 137

Val Pro Glu Asn Gly Lys Gly Pro Phe Pro Gln Arg Leu Asn Gln Leu
1 5 10 15

Lys Ser Asn Lys Asp Arg Asp Thr Lys Ile Phe Tyr Ser Ile Thr Gly
20 25 30

Pro Gly Ala Asp Ser Pro Pro Glu Gly Val Phe Ala Val Glu Lys Glu
35 40 45

Thr Gly Trp Leu Leu Leu Asn Lys Pro Leu Asp
50 55

<210> 138

<211> 59

<212> PRT

<213> Homo sapiens

<400> 138

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

Arg Ser Asp Lys Asp Asn Asp Ile Pro Ile Arg Tyr Ser Ile Thr Gly
20 25 30

Val Gly Ala Asp Gln Pro Pro Met Glu Val Phe Ser Ile Asp Ser Met
35 40 45

Ser Gly Arg Met Tyr Val Thr Arg Pro Met Asp
50 55

<210> 139

<211> 54

<212> PRT

<213> Homo sapiens

<400> 139

Ile Asp Glu Glu Lys Asn Thr Ser Leu Pro His His Val Gly Lys Ile
1 5 10 15

Lys Ser Ser Val Ser Arg Lys Asn Ala Lys Tyr Leu Leu Lys Gly Glu
20 25 30

Tyr Val Gly Lys Val Phe Arg Val Asp Ala Glu Thr Gly Asp Val Phe
35 40 45

Ala Ile Glu Arg Leu Asp
50

<210> 140
<211> 56
<212> PRT
<213> Homo sapiens

<400> 140
Leu Leu Glu Glu Tyr Thr Gly Ser Asp Tyr Gln Tyr Val Gly Lys Leu
1 5 10 15

His Ser Asp Gln Asp Arg Gly Asp Gly Ser Leu Lys Tyr Ile Leu Ser
20 25 30

Gly Asp Gly Ala Gly Asp Leu Phe Ile Ile Asn Glu Asn Thr Gly Asp
35 40 45

Ile Gln Ala Thr Lys Arg Leu Asp
50 55

<210> 141
<211> 56
<212> PRT
<213> Homo sapiens

<400> 141
Val Leu Glu Glu Tyr Met Gly Ser Asp Pro Leu Tyr Val Gly Lys Leu
1 5 10 15

His Ser Asp Val Asp Lys Gly Asp Gly Ser Ile Lys Tyr Ile Leu Ser
20 25 30

Gly Glu Gly Ala Ser Ser Ile Phe Ile Ile Asp Glu Asn Thr Gly Asp
35 40 45

Ile His Ala Thr Lys Arg Leu Asp
50 55

<210> 142
<211> 56

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<212> PRT

<213> Homo sapiens

<400> 142

Val Leu Glu Glu Phe Ser Gly Pro Glu Pro Ile Leu Val Gly Arg Leu
1 5 10 15

His Thr Asp Leu Asp Pro Gly Ser Lys Lys Ile Lys Tyr Ile Leu Ser
20 25 30

Gly Asp Gly Ala Gly Thr Ile Phe Gln Ile Asn Asp Val Thr Gly Asp
35 40 45

Ile His Ala Ile Lys Arg Leu Asp
50 55

<210> 143

<211> 56

<212> PRT

<213> Homo sapiens

<400> 143

Leu Leu Glu Glu Tyr Thr Gly Thr Asp Thr Gln Tyr Val Gly Lys Leu
1 5 10 15

His Thr Asp Gln Asp Lys Gly Asp Gly Asn Leu Lys Tyr Ile Leu Thr
20 25 30

Gly Asp Gly Ala Gly Ser Leu Phe Val Ile Asp Glu Asn Thr Gly Asp
35 40 45

Ile His Ala Ala Lys Lys Leu Asp
50 55