

SEQUENCE LISTING

<110> NOVARTIS AG
SURFACE ONCOLOGY, INC.

<120> ANTIBODY MOLECULES TO CD73 AND USES THEREOF

<130> N2067-7123WO

<140>

<141>

<150> 62/636,510

<151> 2018-02-28

<150> 62/523,481

<151> 2017-06-22

<160> 922

<170> PatentIn version 3.5

<210> 1

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 1

Gly	Gly	Ser	Ile	Ser	Gly	Arg	Tyr	Trp	Ser
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<210> 2

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<213> Artificial Sequence

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<400> 2

Tyr	Ile	Tyr	Gly	Thr	Gly	Ser	Thr	Asn	Tyr	Asn	Pro	Ser	Leu	Lys	Ser
1				5				10					15		

<210> 3

<211> 13

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<213> Artificial Sequence

<220>

<221> source

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

<400> 3

Glu Ser Gln Glu Ser Pro Tyr Asn Asn Trp Phe Asp Pro

<210> 4
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<400> 4
Gly Arg Tyr Trp Ser
1 5

<210> 5
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<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 5
Gly Gly Ser Ile Ser Gly Arg
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<210> 6
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<213> Artificial Sequence

<220>
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<400> 6
Tyr Gly Thr Gly Ser
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<210> 7
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<213> Artificial Sequence

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

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1 5

<210> 8

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<220>
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<400> 8
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1 5

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

<400> 9
Ala Arg Glu Ser Gln Glu Ser Pro Tyr Asn Asn Trp Phe Asp Pro
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<210> 10
<211> 121
<212> PRT
<213> Artificial Sequence

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

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

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Tyr Gly Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Glu Ser Gln Glu Ser Pro Tyr Asn Asn Trp Phe Asp Pro Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 11
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
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<223> /note="Description of Artificial Sequence: Synthetic
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acctgcaccg tgtccggcgg ctccatctcc ggccggtact ggtcttggat ccggcagcct 120
cccggcaagg gcctggaatg gatcggctac atctacggca ccggctccac caactacaac 180
cccagcctga agtccagagt gaccatctcc gtggacacct ccaagaacca gttctccctg 240
aagctgtcct ccgtgaccgc cgctgacacc gccgtgtact actgcgccag agagtcccag 300
gaatcccctt acaacaattg gttcgacccc tggggccagg gcaccctggt caccgtgtcc 360
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<211> 448
<212> PRT
<213> Artificial Sequence

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<220>
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<223> /note="Variant residues given in the sequence have no
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<400> 12
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Gly Arg
20 25 30

Tyr	Trp	Ser	Trp	Ile	Arg	Gln	Pro	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Ile	35	40	45
Gly	Tyr	Ile	Tyr	Gly	Thr	Gly	Ser	Thr	Asn	Tyr	Asn	Pro	Ser	Leu	Lys	50	55	60
Ser	Arg	Val	Thr	Ile	Ser	Val	Asp	Thr	Ser	Lys	Asn	Gln	Phe	Ser	Leu	65	70	75
Lys	Leu	Ser	Ser	Val	Thr	Ala	Ala	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	85	90	95
Arg	Glu	Ser	Gln	Glu	Ser	Pro	Tyr	Asn	Asn	Trp	Phe	Asp	Pro	Trp	Gly	100	105	110
Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	115	120	125
Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	130	135	140
Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	145	150	155
Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	165	170	175
Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val	180	185	190
Pro	Ser	Ser	Ser	Leu	Gly	Thr	Lys	Thr	Tyr	Thr	Cys	Asn	Val	Asp	His	195	200	205
Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu	Ser	Lys	Tyr	Gly	210	215	220
Pro	Pro	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Phe	Leu	Gly	Gly	Pro	Ser	225	230	235
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	Gln	Glu	Asp	Pro	260	265	270
Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	275	280	285

Lys Thr Lys Pro Arg Glu Glu Gln Phe 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 Gly Leu Pro Ser Ser 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 Gln 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 Arg Leu Thr Val Asp Lys Ser
 405 410 415
 Arg Trp Gln Glu 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 Leu Gly Lys
 435 440 445

<210> 13
 <211> 1344
 <212> DNA
 <213> Artificial Sequence

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<220>
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 <222> (1342)..(1344)
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 <223> /note="Variant nucleotides given in the sequence have no preference with respect to those in the annotations for variant positions"

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<400> 13
caagtgcagc tgcaggaatc tggccctggc ctggtcaagc cctccgagac actgtccctg      60
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cccggcaagg gcctggaatg gatcggctac atctacggca ccggctccac caactacaac      180
cccagcctga agtccagagt gaccatctcc gtggacacct ccaagaacca gttctccctg      240
aagctgtcct ccgtgaccgc cgctgacacc gccgtgtact actgcgccag agagtcccag      300
gaatcccctt acaacaattg gttcgacccc tggggccagg gcaccctggg caccgtgtcc      360
tctgcttcca ccaagggccc ctccgtgttc cctctggccc cttgctcccg gtccacctcc      420
gagtctaccg ccgctctggg ctgcctcgtg aaggactact tccccgagcc cgtgaccgtg      480
tcttggaact ctggcgccct gacctccggc gtgcacacct tccctgccgt gctgcagtcc      540
tccggcctgt actccctgtc cagcgtcgtg accgtgccct cctccagcct gggcaccaag      600
acctacacct gtaacgtgga ccacaagccc tccaacacca aagtggacaa gcgggtggaa      660
tctaagtacg gccctccctg ccctccttgc cctgcccctg agttcctggg cggaccttcc      720
gtgttcctgt tccctccaaa gcccaaggac accctgatga tctcccgac ccctgaagtg      780
acctgcgtgg tgggtggacgt gtcccaggaa gatcccgaag tccagttcaa ttggtacgtg      840
gacggcgtgg aagtgcacaa cgccaagacc aagcccagag aggaacagtt caactccacc      900
taccgggtgg tgtccgtgct gaccgtgctg caccaggact ggctgaacgg caaagagtac      960
aagtgcaaag tgtccaacaa gggcctgccc tccagcatcg aaaagaccat ctccaaggcc     1020
aagggccagc cccgcgagcc ccaagtgtac accctgcctc ccagccagga agagatgacc     1080
aagaatcaag tgtccctgac ttgtctggtc aagggttctt acccctccga tatcgccgtg     1140
gagtgggagt ccaacggcca gcccgagaac aactacaaga ccaccctcc cgtgctggac     1200
tccgacggct ctttcttct gtactctcgg ctgaccgtgg acaagtcccg gtggcaggaa     1260
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tccctgtccc tgtctctggg caag                                             1344

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<210> 14

<211> 11

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<213> Artificial Sequence

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<221> source

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

<400> 14

Arg Ala Ser Gln Gly Ile Ser Ser Trp Leu Ala

1

5

10

<210> 15
<211> 7
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<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 15
Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 16
<211> 9
<212> PRT
<213> Artificial Sequence

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

<400> 16
Gln Gln Gly Asn Ser Phe Pro Arg Thr
1 5

<210> 17
<211> 7
<212> PRT
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<220>
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<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 17
Ser Gln Gly Ile Ser Ser Trp
1 5

<210> 18
<211> 3
<212> PRT
<213> Artificial Sequence

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

<400> 18
Ala Ala Ser
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<210> 19
<211> 6
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<213> Artificial Sequence

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 <400> 19
 Gly Asn Ser Phe Pro Arg
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 <210> 20
 <211> 6
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 <400> 20
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 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1 5 10 15

 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Trp
 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 Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

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

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

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

<210> 22
<211> 321
<212> DNA
<213> Artificial Sequence

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

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ggcaaggccc ctaagctgct gatctacgcc gcctccagcc tgcagtccgg cgtgccctcc 180
agattctccg gctctggctc cggcaccgac ttcaccctga ccatacagctc cctgcagccc 240
gaggacttcg ccacctacta ctgccagcag ggcaactcct tccctcggac cttcggcgga 300
ggcaccaaag tggaatcaa g 321

<210> 23
<211> 214
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<213> Artificial Sequence

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

<400> 23
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Trp
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 Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

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

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

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

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

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

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

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

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

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

Phe Asn Arg Gly Glu Cys
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<210> 24

<211> 642

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<213> Artificial Sequence

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<223> /note="Description of Artificial Sequence: Synthetic
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ggcaaggccc ctaagctgct gatctacgcc gcctccagcc tgcagtccgg cgtgccctcc	180
agattctccg gctctggctc cggcaccgac ttcaccctga ccatcagctc cctgcagccc	240
gaggacttcg ccacctacta ctgccagcag ggcaactcct tccctcggac cttcggcgga	300
ggcaccaaag tggaaatcaa gcgtacggtg gccgctccct ccgtgttcat cttcccaccc	360
tccgacgagc agctgaagtc cggcaccgcc tccgtcgtgt gcctgctgaa caacttctac	420
cctcgcgagg ccaaagtgca gtggaaagtg gacaacgccc tgcagtccgg caactcccag	480
gaatccgtca ccgagcagga ctccaaggac agcacctact ccctgtcctc caccctgacc	540
ctgtccaagg ccgactacga gaagcacaaa gtgtacgcct gcgaagtgac ccaccagggc	600
ctgtccagcc ccgtgaccaa gtccttcaac cggggcgagt gc	642

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<211> 10

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Gly Gly Ser Ile Glu Gly Arg Tyr Trp Ser
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<210> 26
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Tyr Ile Tyr Gly Ser Gly Ser Thr Lys Tyr Asn Pro Ser Leu Lys Ser
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<210> 27
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<400> 27
Gly Gly Ser Ile Glu Gly Arg
1 5

<210> 28
<211> 5
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<400> 28
Tyr Gly Ser Gly Ser
1 5

<210> 29
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<221> source
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<400> 29
Gly Gly Ser Ile Glu Gly Arg Tyr
1           5

<210> 30
<211> 7
<212> PRT
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<223> /note="Description of Artificial Sequence: Synthetic
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<400> 30
Ile Tyr Gly Ser Gly Ser Thr
1           5

<210> 31
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
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<223> /note="Description of Artificial Sequence: Synthetic
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<400> 31
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1           5           10           15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Glu Gly Arg
           20           25           30

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
           35           40           45

Gly Tyr Ile Tyr Gly Ser Gly Ser Thr Lys Tyr Asn Pro Ser Leu Lys
           50           55           60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
           85           90           95

Arg Glu Ser Gln Glu Ser Pro Tyr Asn Asn Trp Phe Asp Pro Trp Gly
           100           105           110

Gln Gly Thr Leu Val Thr Val Ser Ser

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<210> 32
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 acctgcaccg tgtccggcgg ctctatcgag ggccggtact ggtcctggat ccggcagcct 120
 cctggcaagg gcctggaatg gatcggctac atctacggct ccggctccac caagtacaac 180
 cccagcctga agtccagagt gaccatctcc gtggacacct ccaagaacca gttctccctg 240
 aagctgtcct ccgtgaccgc cgctgacacc gccgtgtact actgcgccag agagtcccag 300
 gaatcccctt acaacaattg gttcgacccc tggggccagg gcaccctggg caccgtgtcc 360
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 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Glu Gly Arg
 20 25 30

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45

Gly Tyr Ile Tyr Gly Ser Gly Ser Thr Lys Tyr Asn Pro Ser Leu Lys
 50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg Glu Ser Gln Glu Ser Pro Tyr Asn Asn Trp Phe Asp Pro Trp Gly
 100 105 110

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

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

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

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

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

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

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

Pro Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe 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 Gln Glu Asp Pro
 260 265 270

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

Lys Thr Lys Pro Arg Glu Glu Gln Phe 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 Gly Leu Pro Ser Ser 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 Gln 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 Arg Leu Thr Val Asp Lys Ser
 405 410 415

Arg Trp Gln Glu 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 Leu Gly Lys
 435 440 445

<210> 34
 <211> 1344
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<220>
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cctggcaagg gcctggaatg gatcggctac atctacggct ccggctccac caagtacaac	180
cccagcctga agtccagagt gaccatctcc gtggacacct ccaagaacca gttctccctg	240
aagctgtcct ccgtgaccgc cgctgacacc gccgtgtact actgcgccag agagtcccag	300
gaatcccctt acaacaattg gttcgacccc tggggccagg gcaccctggt caccgtgtcc	360
tctgcctcca ccaagggccc ctccgtgttc cctctggccc cttgctcccg gtccacctcc	420
gagtctaccg ccgctctggg ctgcctcgtg aaggactact tccccgagcc cgtgaccgtg	480
tcctggaact ctggcgccct gacctccggc gtgcacacct tccctgccgt gctgcagtcc	540
tccggcctgt actccctgtc cagcgtcgtg accgtgccct cctccagcct gggcaccaag	600
acctacacct gtaacgtgga ccacaagccc tccaacacca aagtggacaa gcgggtggaa	660
tctaagtacg gccctccctg ccctccttgc cctgcccctg agttcctggg cggaccttcc	720
gtgttcctgt tccctccaaa gcccgaaggac accctgatga tctcccggac ccctgaagtg	780
acctgcgtgg tgggtggacgt gtcccaggaa gatcccgaag tccagttcaa ttggtacgtg	840
gacggcgtgg aagtgcacaa cgccaagacc aagcccagag aggaacagtt caactccacc	900
taccgggtgg tgtccgtgct gaccgtgctg caccaggact ggctgaacgg caaagagtac	960
aagtgcaaag tgtccaacaa gggcctgccc tccagcatcg aaaagaccat ctccaaggcc	1020
aagggccagc cccgcgagcc ccaagtgtac accctgcctc ccagccagga agagatgacc	1080
agaatcaag tgtccctgac ttgtctggtc aagggtttct acccctccga tatcgccgtg	1140
gagtgggagt ccaacggcca gcccgagaac aactacaaga ccaccctcc cgtgctggac	1200
tccgacggct ctttcttctt gtactctcgg ctgaccgtgg acaagtcccg gtggcaggaa	1260
ggcaacgtct tctcctgctc cgtgatgcac gaggccctgc acaaccacta caccagaag	1320
tccctgtccc tgtctctggg caag	1344

<210> 35

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 35

Gly	Phe	Thr	Phe	His	Arg	Tyr	Ala	Met	Ser
1				5				10	

<210> 36

<211> 17

<212> PRT

<213> Artificial Sequence

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

<400> 36
Ala Ile Ser Gly Ser Gly Met Asn Thr Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 37
<211> 15
<212> PRT
<213> Artificial Sequence

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

<400> 37
Gly Gly Leu Tyr Gly Ser Gly Ser Tyr Leu Ser Asp Phe Asp Leu
1 5 10 15

<210> 38
<211> 5
<212> PRT
<213> Artificial Sequence

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

<400> 38
Arg Tyr Ala Met Ser
1 5

<210> 39
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 39
Gly Phe Thr Phe His Arg Tyr
1 5

<210> 40
<211> 6
<212> PRT
<213> Artificial Sequence

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

<400> 40
Ser Gly Ser Gly Met Asn
1 5

<210> 41
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 41
Gly Phe Thr Phe His Arg Tyr Ala
1 5

<210> 42
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 42
Ile Ser Gly Ser Gly Met Asn Thr
1 5

<210> 43
<211> 17
<212> PRT
<213> Artificial Sequence

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

<400> 43
Ala Arg Gly Gly Leu Tyr Gly Ser Gly Ser Tyr Leu Ser Asp Phe Asp
1 5 10 15

Leu

<210> 44
<211> 124
<212> PRT
<213> Artificial Sequence

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

 <400> 44
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

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

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

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

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

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

 Ala Arg Gly Gly Leu Tyr Gly Ser Gly Ser Tyr Leu Ser Asp Phe Asp
 100 105 110

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

<210> 45
 <211> 372
 <212> DNA
 <213> Artificial Sequence

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

 <400> 45
 gaagtgcagc tgctggaatc tggcggcgga ctggtgcagc ctggcggctc cctgagactg 60
 tcttgcgccg cctccggctt caccttccac agatacgcca tgcctgggt cgcacaggcc 120
 cctggcaagg gcctggagtg ggtgtccgcc atctccggct ccggcatgaa cacctactac 180
 gccgactccg tgaagggccg gttcaccatc tcccgggaca actccaagaa caccctgtac 240
 ctgcagatga actccctgcg ggccgaggac accgccgtgt actactgtgc cagaggcggc 300
 ctgtacgggt ccggctccta cctgtccgac ttcgacctgt ggggcagagg caccctggtc 360
 accgtgtcct cc 372

<210> 46
<211> 451
<212> PRT
<213> Artificial Sequence

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

<220>
<221> VARIANT
<222> (451)..(451)
<223> /replace=" "

<220>
<221> MISC_FEATURE
<222> (1)..(451)
<223> /note="Variant residues given in the sequence have no preference with respect to those in the annotations for variant positions"

<400> 46
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

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

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

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

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

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

Ala Arg Gly Gly Leu Tyr Gly Ser Gly Ser Tyr Leu Ser Asp Phe Asp
100 105 110

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

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

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

Val	Thr	Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	165	170	175
Phe	Pro	Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	180	185	190
Val	Thr	Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Lys	Thr	Tyr	Thr	Cys	Asn	195	200	205
Val	Asp	His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu	Ser	210	215	220
Lys	Tyr	Gly	Pro	Pro	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Phe	Leu	Gly	225	230	235
Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	245	250	255
Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	Gln	260	265	270
Glu	Asp	Pro	Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	275	280	285
His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	Asn	Ser	Thr	Tyr	290	295	300
Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	305	310	315
Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Pro	Ser	Ser	Ile	325	330	335
Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	340	345	350
Tyr	Thr	Leu	Pro	Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	355	360	365
Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	370	375	380
Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	385	390	395
Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Arg	Leu	Thr	Val	405	410	415

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

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

Leu Gly Lys
450

<210> 47
<211> 1353
<212> DNA
<213> Artificial Sequence

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

<220>
<221> Variation
<222> (1351)..(1353)
<223> /replace=" "

<220>
<221> misc_feature
<222> (1)..(1353)
<223> /note="Variant nucleotides given in the sequence have no
preference with respect to those in the annotations
for variant positions"

<400> 47
gaagtgcagc tgctggaatc tggcggcgga ctggtgcagc ctggcggctc cctgagactg 60
tcttgcgccg cctccggctt caccttccac agatacgcca tgtcctgggt ccgacaggcc 120
cctggcaagg gcctggagtg ggtgtccgcc atctccggct ccggcatgaa cacctactac 180
gccgactccg tgaagggccg gttcaccatc tcccgggaca actccaagaa caccctgtac 240
ctgcagatga actccctgcg ggccgaggac accgccgtgt actactgtgc cagaggcggc 300
ctgtacgggt ccggctccta cctgtccgac ttcgacctgt ggggcagagg caccctggtc 360
accgtgtcct ccgcctccac aaagggcccc tccgtgttcc ctctggcccc ttgctcccgg 420
tccacctccg agtctaccgc cgctctgggc tgcctcgtga aggactactt ccccgagccc 480
gtgaccgtgt cctggaactc tggcgccctg acctccggcg tgcacacctt ccctgccgtg 540
ctgcagtcct ccggcctgta ctccctgtcc agcgtcgtga ccgtgccctc ctccagcctg 600
ggcaccaaga cctacacctg taacgtggac cacaagccct ccaacaccaa agtggacaag 660
cgggtggaat ctaagtacgg ccctccctgc cctccttgcc ctgcccctga gttcctgggc 720
ggaccttccg tgttcctggt ccctccaaag cccaaggaca ccctgatgat ctcccggacc 780
cctgaagtga cctgcgtggt ggtggacgtg tcccaggaag atcccgaagt ccagttcaat 840

tggtacgtgg acggcgtgga agtgcacaac gccaaagacca agcccagaga ggaacagttc	900
aactccacct accgggtggt gtccgtgctg accgtgctgc accaggactg gctgaacggc	960
aaagagtaca agtgcaaagt gtccaacaag ggccctgccct ccagcatcga aaagaccatc	1020
tccaaggcca agggccagcc ccgcgagccc caagtgtaca ccctgcctcc cagccaggaa	1080
gagatgacca agaatcaagt gtccctgact tgtctgggtca agggcttcta cccctccgat	1140
atcgccgtgg agtgggagtc caacggccag cccgagaaca actacaagac caccctccc	1200
gtgctggact ccgacggctc cttcttcctg tactctcggc tgaccgtgga caagtcccgg	1260
tggcaggaag gcaacgtctt ctctgtctcc gtgatgcacg aggccctgca caaccactac	1320
accagagaagt ccctgtccct gtctctgggc aag	1353

<210> 48
 <211> 11
 <212> PRT
 <213> Artificial Sequence

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

<400> 48
 Arg Ala Ser Gln Ser Val Gly Ser Asn Leu Ala
 1 5 10

<210> 49
 <211> 7
 <212> PRT
 <213> Artificial Sequence

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

<400> 49
 Gly Ala Ser Thr Arg Ala Thr
 1 5

<210> 50
 <211> 9
 <212> PRT
 <213> Artificial Sequence

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

<400> 50
 Gln Gln His Asn Ala Phe Pro Tyr Thr
 1 5

<210> 51
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 51
Ser Gln Ser Val Gly Ser Asn
1 5

<210> 52
<211> 3
<212> PRT
<213> Artificial Sequence

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

<400> 52
Gly Ala Ser
1

<210> 53
<211> 6
<212> PRT
<213> Artificial Sequence

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

<400> 53
His Asn Ala Phe Pro Tyr
1 5

<210> 54
<211> 6
<212> PRT
<213> Artificial Sequence

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

<400> 54
Gln Ser Val Gly Ser Asn
1 5

<210> 55
<211> 107
<212> PRT
<213> Artificial Sequence

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

 <400> 55
 Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1 5 10 15

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

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

 Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
 50 55 60

 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
 65 70 75 80

 Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln His Asn Ala Phe Pro Tyr
 85 90 95

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

<210> 56
 <211> 321
 <212> DNA
 <213> Artificial Sequence

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

<400> 56
 gagatcgtgc tgacacagtc ccctgccacc ctgtctgtgt ctcccggcga gagagccacc 60
 ctgagctgca gaggctccca gtccgtgggc tccaacctgg cctggtatca gcagaagccc 120
 ggccaggccc ctcggctgct gatctacggc gcctctacca gagccaccgg catccctgcc 180
 agattctccg gctctggctc cggcaccgag ttcaccctga ccattctccag cctgcagttc 240
 gaggacttcg ccgtgtacta ctgccagcag cacaacgcct tcccttacac cttcggcgga 300
 ggcaccaaag tggaaatcaa g 321

<210> 57
 <211> 214
 <212> PRT
 <213> Artificial Sequence

<220>

<221> source

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

<400> 57

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

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

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

Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln His Asn Ala Phe Pro Tyr
85 90 95

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

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

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

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

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

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

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

Phe Asn Arg Gly Glu Cys
210

<210> 58

<211> 642

<212> DNA
<213> Artificial Sequence

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

<400> 58
gagatcgtgc tgacacagtc ccctgccacc ctgtctgtgt ctcccggcga gagagccacc 60
ctgagctgca gaggctccca gtccgtgggc tccaacctgg cctggatatca gcagaagccc 120
ggccaggccc ctcggtgct gatctacggc gcctctacca gagccaccgg catccctgcc 180
agattctccg gctctggctc cggcaccgag ttcaccctga ccatctccag cctgcagtcc 240
gaggacttcg ccgtgtacta ctgccagcag cacaacgcct tcccttacac cttcggcgga 300
ggcaccaaag tggaaatcaa gcgtacggtg gccgctccct ccgtgttcat cttcccaccc 360
tccgacgagc agctgaagtc cggcaccgcc tccgtcgtgt gcctgctgaa caacttctac 420
cctcgcgagg ccaaagtgca gtggaaagtg gacaacgccc tgcagtccgg caactcccag 480
gaatccgtca ccgagcagga ctccaaggac agcacctact ccctgtcctc caccctgacc 540
ctgtccaagg ccgactacga gaagcacaaa gtgtacgcct gcgaagtgac ccaccagggc 600
ctgtccagcc ccgtgaccaa gtccttcaac cggggcgagt gc 642

<210> 59
<211> 10
<212> PRT
<213> Artificial Sequence

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

<400> 59
Gly Gly Ser Ile Glu Arg Tyr Tyr Trp Ser
1 5 10

<210> 60
<211> 16
<212> PRT
<213> Artificial Sequence

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

<400> 60
Tyr Ile Tyr Gly Arg Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 61
<211> 5

<212> PRT
<213> Artificial Sequence

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

<400> 61
Arg Tyr Tyr Trp Ser
1 5

<210> 62
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 62
Gly Gly Ser Ile Glu Arg Tyr
1 5

<210> 63
<211> 5
<212> PRT
<213> Artificial Sequence

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

<400> 63
Tyr Gly Arg Gly Ser
1 5

<210> 64
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 64
Gly Gly Ser Ile Glu Arg Tyr Tyr
1 5

<210> 65
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

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

<400> 65
Ile Tyr Gly Arg Gly Ser Thr
1           5

<210> 66
<211> 121
<212> PRT
<213> Artificial Sequence

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

<400> 66
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1           5           10           15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Glu Arg Tyr
           20           25           30

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
           35           40           45

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

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
           85           90           95

Arg Glu Ser Gln Glu Ser Pro Tyr Asn Asn Trp Phe Asp Pro Trp Gly
           100           105           110

Gln Gly Thr Leu Val Thr Val Ser Ser
           115           120

```

```

<210> 67
<211> 363
<212> DNA
<213> Artificial Sequence

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

```

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<400> 67
caagtgcagc tgcaggaatc tggccctggc ctggtcaagc cctccgagac actgtccctg

```

```

acctgcaccg tgtccggcgg ctccatcgag cggctactact ggtcctggat ccggcagcct      120
cccggcaagg gcctggaatg gatcggctac atctacggca gaggtccac caactacaac      180
cccagcctga agtccagagt gaccatctcc gtggacacct ccaagaacca gttctccctg      240
aagctgtcct ccgtgaccgc cgctgacacc gccgtgtact actgcgccag agagtcccag      300
gaatccccctt acaacaattg gttcgacccc tggggccagg gcaccctggg caccgtgtcc      360
tct                                                                    363

```

```

<210> 68
<211> 448
<212> PRT
<213> Artificial Sequence

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

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<220>
<221> VARIANT
<222> (448)..(448)
<223> /replace=" "

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<220>
<221> MISC_FEATURE
<222> (1)..(448)
<223> /note="Variant residues given in the sequence have no
      preference with respect to those in the annotations
      for variant positions"

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<400> 68
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1              5              10              15

```

```

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Glu Arg Tyr
      20              25              30

```

```

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
      35              40              45

```

```

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

```

```

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

```

```

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
      85              90              95

```

```

Arg Glu Ser Gln Glu Ser Pro Tyr Asn Asn Trp Phe Asp Pro Trp Gly
      100             105             110

```

Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser		
		115					120					125					
Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala		
	130					135					140						
Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val		
145					150					155					160		
Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala		
				165					170					175			
Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val		
			180					185					190				
Pro	Ser	Ser	Ser	Leu	Gly	Thr	Lys	Thr	Tyr	Thr	Cys	Asn	Val	Asp	His		
		195					200					205					
Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu	Ser	Lys	Tyr	Gly		
	210					215					220						
Pro	Pro	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Phe	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	Gln	Glu	Asp	Pro		
			260					265					270				
Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala		
		275					280					285					
Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	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	Gly	Leu	Pro	Ser	Ser	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	Gln	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 Arg Leu Thr Val Asp Lys Ser
 405 410 415

Arg Trp Gln Glu 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 Leu Gly Lys
 435 440 445

<210> 69
 <211> 1344
 <212> DNA
 <213> Artificial Sequence

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

<220>
 <221> Variation
 <222> (1342)..(1344)
 <223> /replace=" "

<220>
 <221> misc_feature
 <222> (1)..(1344)
 <223> /note="Variant nucleotides given in the sequence have no
 preference with respect to those in the annotations
 for variant positions"

<400> 69
 caagtgcagc tgcaggaatc tggccctggc ctggtcaagc cctccgagac actgtccctg 60
 acctgcaccg tgtccggcgg ctccatcgag cgggtactact ggtcctggat ccggcagcct 120
 cccggcaagg gcctggaatg gatcggctac atctacggca gaggtccac caactacaac 180
 cccagcctga agtccagagt gaccatctcc gtggacacct ccaagaacca gttctccctg 240
 aagctgtcct ccgtgaccgc cgctgacacc gccgtgtact actgcgccag agagtcccag 300
 gaatcccctt acaacaattg gttcgacccc tggggccagg gcaccctggc caccgtgtcc 360
 tctgcctcca ccaagggccc ctccgtgttc cctctggccc cttgctcccg gtccacctcc 420
 gagtctaccg ccgctctggg ctgcctcgtg aaggactact tccccgagcc cgtgaccgtg 480
 tcctggaact ctggcgccct gacctccggc gtgcacacct tccctgccgt gctgcagtcc 540

tccggcctgt actccctgtc cagcgtcgtg accgtgccct cctccagcct gggcaccaag	600
acctacacct gtaacgtgga ccacaagccc tccaacacca aagtggacaa gcgggtggaa	660
tctaagtacg gccctccctg ccctccttgc cctgcccctg agttcctggg cggaccttcc	720
gtgttcctgt tccctccaaa gccaagggac accctgatga tctcccggac ccctgaagtg	780
acctgcgtgg tgggtggacgt gtcccaggaa gatcccgaag tccagttcaa ttggtacgtg	840
gacggcgtgg aagtgcacaa cgccaagacc aagcccagag aggaacagtt caactccacc	900
taccgggtgg tgtccgtgct gaccgtgctg caccaggact ggctgaacgg caaagagtac	960
aagtgcaaag tgtccaacaa gggcctgccc tccagcatcg aaaagaccat ctccaaggcc	1020
aagggccagc cccgcgagcc ccaagtgtac accctgcctc ccagccagga agagatgacc	1080
agaatcaag tgtccctgac ttgtctggtc aagggtttct acccctccga tatcgccgtg	1140
gagtgggagt ccaacggcca gcccgagaac aactacaaga ccaccctcc cgtgctggac	1200
tccgacggct ccttcttctt gtactctcgg ctgaccgtgg acaagtcccg gtggcaggaa	1260
ggcaacgtct tctcctgctc cgtgatgcac gaggccctgc acaaccacta caccagaag	1320
tccctgtccc tgtctctggg caag	1344

<210> 70

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 70

Gly	Phe	Thr	Phe	Ser	Tyr	Asn	Ala	Met	Ser
1				5				10	

<210> 71

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 71

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

Gly

<210> 72

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

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

<400> 72
Tyr Asn Ala Met Ser
1 5

<210> 73
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 73
Gly Phe Thr Phe Ser Tyr Asn
1 5

<210> 74
<211> 6
<212> PRT
<213> Artificial Sequence

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

<400> 74
Ser Gly Thr Gly Gly Ser
1 5

<210> 75
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 75
Gly Phe Thr Phe Ser Tyr Asn Ala
1 5

<210> 76
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 76
Ile Ser Gly Thr Gly Gly Ser Thr
1           5

<210> 77
<211> 124
<212> PRT
<213> Artificial Sequence

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

<400> 77
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1           5           10           15

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

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

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

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

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

Ala Arg Gly Gly Leu Tyr Gly Ser Gly Ser Tyr Leu Ser Asp Phe Asp
           100           105           110

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

<210> 78
<211> 372
<212> DNA
<213> Artificial Sequence

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

<400> 78

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gaagtgcagc tgctggaatc tggcggcgga ctggtgcagc ctggcggctc cctgagactg      60
tcttgcgccg cctccggctt caccttctcc tacaacgcca tgtcctgggt ccgacaggcc      120
cctggcaagg gcctggagtg ggtgtcctcc atctccggca ccggcggctc cacctactac      180
gccgactctg tgaagggccg gttcaccatc tcccgggaca actccaagaa caccctgtac      240
ctgcagatga actccctgcg ggccgaggac accgccgtgt actactgtgc cagaggcggc      300
ctgtacggct ccggctccta cctgtccgac ttcgacctgt ggggcagagg caccctggtc      360
accgtgtcct cc                                                                372

```

```

<210> 79
<211> 451
<212> PRT
<213> Artificial Sequence

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

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<220>
<221> VARIANT
<222> (451)..(451)
<223> /replace=" "

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<220>
<221> MISC_FEATURE
<222> (1)..(451)
<223> /note="Variant residues given in the sequence have no
      preference with respect to those in the annotations
      for variant positions"

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```

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

```

```

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

```

```

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

```

```

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

```

```

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

```

```

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

```

```

Ala Arg Gly Gly Leu Tyr Gly Ser Gly Ser Tyr Leu Ser Asp Phe Asp

```

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

355

360

365

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

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

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

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

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

Leu Gly Lys
 450

<210> 80

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<221> source

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

<220>

<221> Variation

<222> (1351)..(1353)

<223> /replace=" "

<220>

<221> misc_feature

<222> (1)..(1353)

<223> /note="Variant nucleotides given in the sequence have no preference with respect to those in the annotations for variant positions"

<400> 80

gaagtgcagc tgctggaatc tggcggcgga ctggtgcagc ctggcggctc cctgagactg 60

tcttgcgccg cctccggctt caccttctcc tacaacgcca tgcctgggt cgcacaggcc 120

cctggcaagg gcctggagtg ggtgtcctcc atctccggca ccggcggctc cacctactac 180

gccgactctg tgaagggccg gttcaccatc tcccgggaca actccaagaa caccctgtac 240

ctgcagatga actccctgcg ggccgaggac accgccgtgt actactgtgc cagaggcggc 300

ctgtacgggt ccggctccta cctgtccgac ttcgacctgt ggggcagagg caccctggtc 360

accgtgtcct ccgcctccac aaagggcccc tccgtgttcc ctctggcccc ttgctcccg 420

tccacctccg agtctaccgc cgctctgggc tgcctcgtga aggactactt ccccgagccc	480
gtgaccgtgt cctggaactc tggcgccctg acctccggcg tgcacacctt ccctgccgtg	540
ctgcagtcct ccggcctgta ctccctgtcc agcgtcgtga ccgtgccctc ctccagcctg	600
ggcaccaaga cctacacctg taacgtggac cacaagccct ccaacaccaa agtggacaag	660
cgggtggaat ctaagtacgg ccctccctgc cctccttgcc ctgcccctga gttcctgggc	720
ggaccttccg tgttcctggt ccctccaaag cccaaggaca ccctgatgat ctcccgacc	780
cctgaagtga cctgcgtggt ggtggacgtg tcccaggaag atcccgaagt ccagttcaat	840
tgggtacgtg acggcgtgga agtgcacaac gccaagacca agcccagaga ggaacagttc	900
aactccacct accgggtggt gtccgtgctg accgtgctgc accaggactg gctgaacggc	960
aaagagtaca agtgcaaagt gtccaacaag ggccctgccct ccagcatcga aaagaccatc	1020
tccaaggcca agggccagcc ccgcgagccc caagtgtaca ccctgcctcc cagccaggaa	1080
gagatgacca agaatcaagt gtccctgact tgtctgggtca agggcttcta cccctccgat	1140
atcgccgtgg agtgggagtc caacggccag cccgagaaca actacaagac caccctccc	1200
gtgctggact ccgacggctc cttcttcctg tactctcggc tgaccgtgga caagtcccg	1260
tggcaggaag gcaacgtctt ctctgtctcc gtgatgcacg aggccctgca caaccactac	1320
accagagaagt ccctgtccct gtctctgggc aag	1353

<210> 81
 <211> 10
 <212> PRT
 <213> Artificial Sequence

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

<400> 81
 Gly Phe Thr Phe Ser Arg Tyr Ala Met Ser
 1 5 10

<210> 82
 <211> 7
 <212> PRT
 <213> Artificial Sequence

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

<400> 82
 Gly Phe Thr Phe Ser Arg Tyr
 1 5

<210> 83
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 83
Gly Phe Thr Phe Ser Arg Tyr Ala
1 5

<210> 84
<211> 124
<212> PRT
<213> Artificial Sequence

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

<400> 84
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

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

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

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

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

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

Ala Arg Gly Gly Leu Tyr Gly Ser Gly Ser Tyr Leu Ser Asp Phe Asp
100 105 110

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

<210> 85
<211> 372
<212> DNA
<213> Artificial Sequence

<220>

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

<400> 85
gaagtgcagc tgctggaatc tggcggcgga ctggtgcagc ctggcggctc cctgagactg      60
tcttgcgccg cctccggctt caccttctcc agatacgcca tgcctgggt cgcacaggcc      120
cctggcaagg gcctggagtg ggtgtcctcc atctccggca ccggcggctc cacctactac      180
gccgactctg tgaagggccg gttcaccatc tcccgggaca actccaagaa caccctgtac      240
ctgcagatga actccctgcg ggccgaggac accgccgtgt actactgtgc cagaggcggc      300
ctgtacgggt ccggctccta cctgtccgac ttcgacctgt ggggcagagg caccctggtc      360
accgtgtcct cc                                                             372

```

```

<210> 86
<211> 451
<212> PRT
<213> Artificial Sequence

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

```

```

<220>
<221> VARIANT
<222> (451)..(451)
<223> /replace=" "

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<220>
<221> MISC_FEATURE
<222> (1)..(451)
<223> /note="Variant residues given in the sequence have no
        preference with respect to those in the annotations
        for variant positions"

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<400> 86
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1          5          10          15

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

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

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

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

```

Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	
			85						90						95	
Ala	Arg	Gly	Gly	Leu	Tyr	Gly	Ser	Gly	Ser	Tyr	Leu	Ser	Asp	Phe	Asp	
			100					105					110			
Leu	Trp	Gly	Arg	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	
		115					120					125				
Gly	Pro	Ser	Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	
	130					135					140					
Ser	Thr	Ala	Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	
145					150					155					160	
Val	Thr	Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	
				165					170					175		
Phe	Pro	Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	
			180					185					190			
Val	Thr	Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Lys	Thr	Tyr	Thr	Cys	Asn	
		195					200					205				
Val	Asp	His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu	Ser	
	210					215					220					
Lys	Tyr	Gly	Pro	Pro	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Phe	Leu	Gly	
225					230					235					240	
Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	
				245					250					255		
Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	Gln	
			260					265					270			
Glu	Asp	Pro	Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	
		275					280					285				
His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	Asn	Ser	Thr	Tyr	
	290					295					300					
Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	
305					310					315					320	
Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Pro	Ser	Ser	Ile	
				325					330					335		

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

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

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

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

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

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

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

Leu Gly Lys
450

<210> 87
<211> 1353
<212> DNA
<213> Artificial Sequence

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

<220>
<221> Variation
<222> (1351)..(1353)
<223> /replace=" "

<220>
<221> misc_feature
<222> (1)..(1353)
<223> /note="Variant nucleotides given in the sequence have no
preference with respect to those in the annotations
for variant positions"

<400> 87
gaagtgcagc tgctggaatc tggcggcgga ctggtgcagc ctggcggctc cctgagactg 60
tcttgcgccg cctccggctt caccttctcc agatacgcca tgtcctgggt ccgacaggcc 120
cctggcaagg gcctggagtg ggtgtcctcc atctccggca ccggcggctc cacctactac 180
gccgactctg tgaagggccg gttcaccatc tcccgggaca actccaagaa caccctgtac 240

ctgcagatga actccctgcg ggccgaggac accgccgtgt actactgtgc cagaggcggc	300
ctgtacgggct ccggctccta cctgtccgac ttcgacctgt ggggcagagg caccctggtc	360
accgtgtcct ccgcctccac aaagggcccc tccgtgttcc ctctggcccc ttgctcccgg	420
tccacctccg agtctaccgc cgctctgggc tgcctcgtga aggactactt ccccgagccc	480
gtgaccgtgt cctggaactc tggcgccctg acctccggcg tgcacacctt ccctgccgtg	540
ctgcagtcct ccggcctgta ctccctgtcc agcgtcgtga ccgtgccctc ctccagcctg	600
ggcaccaaga cctacacctg taacgtggac cacaagccct ccaacaccaa agtggacaag	660
cgggtggaat ctaagtacgg ccctccctgc cctccttgcc ctgcccctga gttcctgggc	720
ggaccttccg tgttcctggt ccctccaaag cccaaggaca ccctgatgat ctccgggacc	780
cctgaagtga cctgctgggt ggtggacgtg tcccaggaag atcccgaagt ccagttcaat	840
tggtacgtgg acggcgtgga agtgcacaac gccaaagacca agcccagaga ggaacagttc	900
aactccacct accgggtggt gtccgtgctg accgtgctgc accaggactg gctgaacggc	960
aaagagtaca agtgcaaagt gtccaacaag ggccctgccct ccagcatcga aaagaccatc	1020
tccaaggcca agggccagcc ccgcgagccc caagtgtaca ccctgcctcc cagccaggaa	1080
gagatgacca agaatcaagt gtccctgact tgtctgggtca agggcttcta cccctccgat	1140
atcgccgtgg agtgggagtc caacggccag cccgagaaca actacaagac caccctccc	1200
gtgctggact ccgacggctc cttcttcctg tactctcggc tgaccgtgga caagtcccgg	1260
tggcaggaag gcaacgtctt ctctgtctcc gtgatgcacg aggccctgca caaccactac	1320
accagaagt ccctgtccct gtctctgggc aag	1353

<210> 88

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<220>

<221> VARIANT

<222> (1)..(1)

<223> /replace="Tyr" or "Ser"

<220>

<221> VARIANT

<222> (2)..(2)

<223> /replace="Asn"

<220>

<221> MISC_FEATURE

<222> (1)..(5)

<223> /note="Variant residues given in the sequence have no

preference with respect to those in the annotations
for variant positions"

<400> 88

Arg Tyr Ala Met Ser
1 5

<210> 89

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<220>

<221> VARIANT

<222> (1)..(1)

<223> /replace="Ser"

<220>

<221> VARIANT

<222> (3)..(3)

<223> /replace="Thr"

<220>

<221> VARIANT

<222> (5)..(5)

<223> /replace="Thr"

<220>

<221> VARIANT

<222> (7)..(7)

<223> /replace="Gly" or "Ser"

<220>

<221> VARIANT

<222> (8)..(8)

<223> /replace="Ser" or "Leu" or "Tyr"

<220>

<221> MISC_FEATURE

<222> (1)..(17)

<223> /note="Variant residues given in the sequence have no
preference with respect to those in the annotations
for variant positions"

<400> 89

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

Gly

<210> 90

<211> 5

<212> PRT

<213> Artificial Sequence

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

<220>
<221> VARIANT
<222> (1)..(1)
<223> /replace="Gly" or "Ser"

<220>
<221> VARIANT
<222> (2)..(2)
<223> /replace="Arg"

<220>
<221> MISC_FEATURE
<222> (1)..(5)
<223> /note="Variant residues given in the sequence have no preference with respect to those in the annotations for variant positions"

<400> 90
Arg Tyr Tyr Trp Ser
1 5

<210> 91
<211> 16
<212> PRT
<213> Artificial Sequence

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

<220>
<221> VARIANT
<222> (4)..(4)
<223> /replace="Ser"

<220>
<221> VARIANT
<222> (5)..(5)
<223> /replace="Ser" or "Thr"

<220>
<221> VARIANT
<222> (9)..(9)
<223> /replace="Lys"

<220>
<221> MISC_FEATURE
<222> (1)..(16)
<223> /note="Variant residues given in the sequence have no preference with respect to those in the annotations for variant positions"

<400> 91
Tyr Ile Tyr Gly Arg Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys Ser

1 5 10 15

<210> 92
<211> 327
<212> PRT
<213> Artificial Sequence

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

<400> 92
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1 5 10 15

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr
65 70 75 80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro
100 105 110

Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
115 120 125

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
130 135 140

Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp
145 150 155 160

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe
165 170 175

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
180 185 190

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu
195 200 205

Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
210 215 220

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys
225 230 235 240

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
245 250 255

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
260 265 270

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
275 280 285

Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser
290 295 300

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
305 310 315 320

Leu Ser Leu Ser Leu Gly Lys
325

<210> 93
<211> 326
<212> PRT
<213> Artificial Sequence

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

<400> 93
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1 5 10 15

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr
65 70 75 80

Tyr	Thr	Cys	Asn	Val	Asp	His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	85	90	95	
Arg	Val	Glu	Ser	Lys	Tyr	Gly	Pro	Pro	Cys	Pro	Pro	Cys	Pro	Ala	Pro	100	105	110	
Glu	Phe	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	115	120	125	
Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	130	135	140	
Asp	Val	Ser	Gln	Glu	Asp	Pro	Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	145	150	155	160
Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	165	170	175	
Asn	Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	180	185	190	
Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	195	200	205	
Pro	Ser	Ser	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	210	215	220	
Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys	225	230	235	240
Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	245	250	255	
Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	260	265	270	
Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	275	280	285	
Arg	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Glu	Gly	Asn	Val	Phe	Ser	290	295	300	
Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	305	310	315	320
Leu	Ser	Leu	Ser	Leu	Gly											325			

<210> 94
<211> 327
<212> PRT
<213> Artificial Sequence

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

<400> 94
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1 5 10 15

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr
65 70 75 80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro
100 105 110

Glu Phe Glu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
115 120 125

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
130 135 140

Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp
145 150 155 160

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe
165 170 175

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
180 185 190

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu
195 200 205

Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
210 215 220

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys
225 230 235 240

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
245 250 255

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
260 265 270

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
275 280 285

Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser
290 295 300

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
305 310 315 320

Leu Ser Leu Ser Leu Gly Lys
325

<210> 95
<211> 326
<212> PRT
<213> Artificial Sequence

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

<400> 95
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1 5 10 15

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr
65 70 75 80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys

Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro
 100 105 110

Glu Phe Glu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
 115 120 125

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
 130 135 140

Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp
 145 150 155 160

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe
 165 170 175

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
 180 185 190

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu
 195 200 205

Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
 210 215 220

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys
 225 230 235 240

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
 245 250 255

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
 260 265 270

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
 275 280 285

Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser
 290 295 300

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
 305 310 315 320

Leu Ser Leu Ser Leu Gly
 325

<211> 330
<212> PRT
<213> Artificial Sequence

<220>

<221> source

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

<400> 96

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

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
115 120 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
195 200 205

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
225 230 235 240

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
290 295 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 97

<211> 329

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 97

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

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

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

<210> 98
 <211> 330
 <212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 98

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

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
115 120 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
165 170 175

Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
195 200 205

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
225 230 235 240

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
290 295 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 99

<211> 329

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 99

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

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

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

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

<210> 100

<211> 330

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 100

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

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
115 120 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
130 135 140

Val Val Val Ala Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
195 200 205

Lys Ala Leu Ala Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
225 230 235 240

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
290 295 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 101

<211> 329

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 101

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

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

<221> source

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

<400> 102

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

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
115 120 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
195 200 205

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
225 230 235 240

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
290 295 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 103

<211> 329

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 103

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

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro

115

120

125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
 130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
 145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
 165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
 180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 195 200 205

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
 225 230 235 240

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
 245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
 260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
 275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
 290 295 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
 305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly
 325

<210> 104

<211> 107

<212> PRT

<213> Homo sapiens

<400> 104

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

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
20 25 30

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
35 40 45

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
50 55 60

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
65 70 75 80

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
85 90 95

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
100 105

<210> 105

<211> 574

<212> PRT

<213> Homo sapiens

<400> 105

Met Cys Pro Arg Ala Ala Arg Ala Pro Ala Thr Leu Leu Leu Ala Leu
1 5 10 15

Gly Ala Val Leu Trp Pro Ala Ala Gly Ala Trp Glu Leu Thr Ile Leu
20 25 30

His Thr Asn Asp Val His Ser Arg Leu Glu Gln Thr Ser Glu Asp Ser
35 40 45

Ser Lys Cys Val Asn Ala Ser Arg Cys Met Gly Gly Val Ala Arg Leu
50 55 60

Phe Thr Lys Val Gln Gln Ile Arg Arg Ala Glu Pro Asn Val Leu Leu
65 70 75 80

Leu Asp Ala Gly Asp Gln Tyr Gln Gly Thr Ile Trp Phe Thr Val Tyr
85 90 95

Lys Gly Ala Glu Val Ala His Phe Met Asn Ala Leu Arg Tyr Asp Ala
100 105 110

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

Glu Pro Leu Leu Lys Glu Ala Lys Phe Pro Ile Leu Ser Ala Asn Ile

130

135

140

Lys Ala Lys Gly Pro Leu Ala Ser Gln Ile Ser Gly Leu Tyr Leu Pro
 145 150 155 160

Tyr Lys Val Leu Pro Val Gly Asp Glu Val Val Gly Ile Val Gly Tyr
 165 170 175

Thr Ser Lys Glu Thr Pro Phe Leu Ser Asn Pro Gly Thr Asn Leu Val
 180 185 190

Phe Glu Asp Glu Ile Thr Ala Leu Gln Pro Glu Val Asp Lys Leu Lys
 195 200 205

Thr Leu Asn Val Asn Lys Ile Ile Ala Leu Gly His Ser Gly Phe Glu
 210 215 220

Met Asp Lys Leu Ile Ala Gln Lys Val Arg Gly Val Asp Val Val Val
 225 230 235 240

Gly Gly His Ser Asn Thr Phe Leu Tyr Thr Gly Asn Pro Pro Ser Lys
 245 250 255

Glu Val Pro Ala Gly Lys Tyr Pro Phe Ile Val Thr Ser Asp Asp Gly
 260 265 270

Arg Lys Val Pro Val Val Gln Ala Tyr Ala Phe Gly Lys Tyr Leu Gly
 275 280 285

Tyr Leu Lys Ile Glu Phe Asp Glu Arg Gly Asn Val Ile Ser Ser His
 290 295 300

Gly Asn Pro Ile Leu Leu Asn Ser Ser Ile Pro Glu Asp Pro Ser Ile
 305 310 315 320

Lys Ala Asp Ile Asn Lys Trp Arg Ile Lys Leu Asp Asn Tyr Ser Thr
 325 330 335

Gln Glu Leu Gly Lys Thr Ile Val Tyr Leu Asp Gly Ser Ser Gln Ser
 340 345 350

Cys Arg Phe Arg Glu Cys Asn Met Gly Asn Leu Ile Cys Asp Ala Met
 355 360 365

Ile Asn Asn Asn Leu Arg His Ala Asp Glu Thr Phe Trp Asn His Val
 370 375 380

Ser Met Cys Ile Leu Asn Gly Gly Gly Ile Arg Ser Pro Ile Asp Glu

385		390		395		400
Arg Asn Asn Gly Thr Ile Thr Trp Glu Asn Leu Ala Ala Val Leu Pro	405			410		415
Phe Gly Gly Thr Phe Asp Leu Val Gln Leu Lys Gly Ser Thr Leu Lys	420			425		430
Lys Ala Phe Glu His Ser Val His Arg Tyr Gly Gln Ser Thr Gly Glu	435			440		445
Phe Leu Gln Val Gly Gly Ile His Val Val Tyr Asp Leu Ser Arg Lys	450			455		460
Pro Gly Asp Arg Val Val Lys Leu Asp Val Leu Cys Thr Lys Cys Arg	465			470		475
Val Pro Ser Tyr Asp Pro Leu Lys Met Asp Glu Val Tyr Lys Val Ile	485			490		495
Leu Pro Asn Phe Leu Ala Asn Gly Gly Asp Gly Phe Gln Met Ile Lys	500			505		510
Asp Glu Leu Leu Arg His Asp Ser Gly Asp Gln Asp Ile Asn Val Val	515			520		525
Ser Thr Tyr Ile Ser Lys Met Lys Val Ile Tyr Pro Ala Val Glu Gly	530			535		540
Arg Ile Lys Phe Ser Thr Gly Ser His Cys His Gly Ser Phe Ser Leu	545			550		555
						560
Ile Phe Leu Ser Leu Trp Ala Val Ile Phe Val Leu Tyr Gln	565			570		

<210> 106
 <211> 574
 <212> PRT
 <213> Homo sapiens

<400> 106
Met Cys Pro Arg Ala Ala Arg Ala Pro Ala Thr Leu Leu Leu Ala Leu
1 5 10 15
Gly Ala Val Leu Trp Pro Ala Ala Gly Ala Trp Glu Leu Thr Ile Leu
20 25 30
His Thr Asn Asp Val His Ser Arg Leu Glu Gln Thr Ser Glu Asp Ser
35 40 45

Ser	Lys	Cys	Val	Asn	Ala	Ser	Arg	Cys	Met	Gly	Gly	Val	Ala	Arg	Leu	50	55	60	
Phe	Thr	Lys	Val	Gln	Gln	Ile	Arg	Arg	Ala	Glu	Pro	Asn	Val	Leu	Leu	65	70	75	80
Leu	Asp	Ala	Gly	Asp	Gln	Tyr	Gln	Gly	Thr	Ile	Trp	Phe	Thr	Val	Tyr	85	90	95	
Lys	Gly	Ala	Glu	Val	Ala	His	Phe	Met	Asn	Ala	Leu	Arg	Tyr	Asp	Ala	100	105	110	
Met	Ala	Leu	Gly	Asn	His	Glu	Phe	Asp	Asn	Gly	Val	Glu	Gly	Leu	Ile	115	120	125	
Glu	Pro	Leu	Leu	Lys	Glu	Ala	Lys	Phe	Pro	Ile	Leu	Ser	Ala	Asn	Ile	130	135	140	
Lys	Ala	Lys	Gly	Pro	Leu	Ala	Ser	Gln	Ile	Ser	Gly	Leu	Tyr	Leu	Pro	145	150	155	160
Tyr	Lys	Val	Leu	Pro	Val	Gly	Asp	Glu	Val	Val	Gly	Ile	Val	Gly	Tyr	165	170	175	
Thr	Ser	Lys	Glu	Thr	Pro	Phe	Leu	Ser	Asn	Pro	Gly	Thr	Asn	Leu	Val	180	185	190	
Phe	Glu	Asp	Glu	Ile	Thr	Ala	Leu	Gln	Pro	Glu	Val	Asp	Lys	Leu	Lys	195	200	205	
Thr	Leu	Asn	Val	Asn	Lys	Ile	Ile	Ala	Leu	Gly	His	Ser	Gly	Phe	Glu	210	215	220	
Met	Asp	Lys	Leu	Ile	Ala	Gln	Lys	Val	Arg	Gly	Val	Asp	Val	Val	Val	225	230	235	240
Gly	Gly	His	Ser	Asn	Thr	Phe	Leu	Tyr	Thr	Gly	Asn	Pro	Pro	Ser	Lys	245	250	255	
Glu	Val	Pro	Ala	Gly	Lys	Tyr	Pro	Phe	Ile	Val	Thr	Ser	Asp	Asp	Gly	260	265	270	
Arg	Lys	Val	Pro	Val	Val	Gln	Ala	Tyr	Ala	Phe	Gly	Lys	Tyr	Leu	Gly	275	280	285	
Tyr	Leu	Lys	Ile	Glu	Phe	Asp	Glu	Arg	Gly	Asn	Val	Ile	Ser	Ser	His	290	295	300	

Gly	Asn	Pro	Ile	Leu	Leu	Asn	Ser	Ser	Ile	Pro	Glu	Asp	Pro	Ser	Ile	305	310	315	320
Lys	Ala	Asp	Ile	Asn	Lys	Trp	Arg	Ile	Lys	Leu	Asp	Asn	Tyr	Ser	Thr	325	330	335	
Gln	Glu	Leu	Gly	Lys	Thr	Ile	Val	Tyr	Leu	Asp	Gly	Ser	Ser	Gln	Ser	340	345	350	
Cys	Arg	Phe	Arg	Glu	Cys	Asn	Met	Gly	Asn	Leu	Ile	Cys	Asp	Ala	Met	355	360	365	
Ile	Asn	Asn	Asn	Leu	Arg	His	Thr	Asp	Glu	Met	Phe	Trp	Asn	His	Val	370	375	380	
Ser	Met	Cys	Ile	Leu	Asn	Gly	Gly	Gly	Ile	Arg	Ser	Pro	Ile	Asp	Glu	385	390	395	400
Arg	Asn	Asn	Gly	Thr	Ile	Thr	Trp	Glu	Asn	Leu	Ala	Ala	Val	Leu	Pro	405	410	415	
Phe	Gly	Gly	Thr	Phe	Asp	Leu	Val	Gln	Leu	Lys	Gly	Ser	Thr	Leu	Lys	420	425	430	
Lys	Ala	Phe	Glu	His	Ser	Val	His	Arg	Tyr	Gly	Gln	Ser	Thr	Gly	Glu	435	440	445	
Phe	Leu	Gln	Val	Gly	Gly	Ile	His	Val	Val	Tyr	Asp	Leu	Ser	Arg	Lys	450	455	460	
Pro	Gly	Asp	Arg	Val	Val	Lys	Leu	Asp	Val	Leu	Cys	Thr	Lys	Cys	Arg	465	470	475	480
Val	Pro	Ser	Tyr	Asp	Pro	Leu	Lys	Met	Asp	Glu	Val	Tyr	Lys	Val	Ile	485	490	495	
Leu	Pro	Asn	Phe	Leu	Ala	Asn	Gly	Gly	Asp	Gly	Phe	Gln	Met	Ile	Lys	500	505	510	
Asp	Glu	Leu	Leu	Arg	His	Asp	Ser	Gly	Asp	Gln	Asp	Ile	Asn	Val	Val	515	520	525	
Ser	Thr	Tyr	Ile	Ser	Lys	Met	Lys	Val	Ile	Tyr	Pro	Ala	Val	Glu	Gly	530	535	540	
Arg	Ile	Lys	Phe	Ser	Thr	Gly	Ser	His	Cys	His	Gly	Ser	Phe	Ser	Leu	545	550	555	560

Ile Phe Leu Ser Leu Trp Ala Val Ile Phe Val Leu Tyr Gln
565 570

<210> 107
<211> 524
<212> PRT
<213> Homo sapiens

<400> 107
Met Cys Pro Arg Ala Ala Arg Ala Pro Ala Thr Leu Leu Leu Ala Leu
1 5 10 15

Gly Ala Val Leu Trp Pro Ala Ala Gly Ala Trp Glu Leu Thr Ile Leu
20 25 30

His Thr Asn Asp Val His Ser Arg Leu Glu Gln Thr Ser Glu Asp Ser
35 40 45

Ser Lys Cys Val Asn Ala Ser Arg Cys Met Gly Gly Val Ala Arg Leu
50 55 60

Phe Thr Lys Val Gln Gln Ile Arg Arg Ala Glu Pro Asn Val Leu Leu
65 70 75 80

Leu Asp Ala Gly Asp Gln Tyr Gln Gly Thr Ile Trp Phe Thr Val Tyr
85 90 95

Lys Gly Ala Glu Val Ala His Phe Met Asn Ala Leu Arg Tyr Asp Ala
100 105 110

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

Glu Pro Leu Leu Lys Glu Ala Lys Phe Pro Ile Leu Ser Ala Asn Ile
130 135 140

Lys Ala Lys Gly Pro Leu Ala Ser Gln Ile Ser Gly Leu Tyr Leu Pro
145 150 155 160

Tyr Lys Val Leu Pro Val Gly Asp Glu Val Val Gly Ile Val Gly Tyr
165 170 175

Thr Ser Lys Glu Thr Pro Phe Leu Ser Asn Pro Gly Thr Asn Leu Val
180 185 190

Phe Glu Asp Glu Ile Thr Ala Leu Gln Pro Glu Val Asp Lys Leu Lys
195 200 205

Thr Leu Asn Val Asn Lys Ile Ile Ala Leu Gly His Ser Gly Phe Glu

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

465 470 475 480

Tyr Ile Ser Lys Met Lys Val Ile Tyr Pro Ala Val Glu Gly Arg Ile
485 490 495

Lys Phe Ser Thr Gly Ser His Cys His Gly Ser Phe Ser Leu Ile Phe
500 505 510

Leu Ser Leu Trp Ala Val Ile Phe Val Leu Tyr Gln
515 520

<210> 108
<211> 15
<212> PRT
<213> Homo sapiens

<400> 108
Tyr Leu Pro Tyr Lys Val Leu Pro Val Gly Asp Glu Val Val Gly
1 5 10 15

<210> 109
<211> 10
<212> PRT
<213> Homo sapiens

<400> 109
Lys Leu Lys Thr Leu Asn Val Asn Lys Ile
1 5 10

<210> 110
<211> 20
<212> PRT
<213> Homo sapiens

<400> 110
Met Ile Asn Asn Asn Leu Arg His Ala Asp Glu Thr Phe Trp Asn His
1 5 10 15

Val Ser Met Cys
20

<210> 111
<211> 18
<212> PRT
<213> Homo sapiens

<400> 111
Tyr Gln Gly Thr Ile Trp Phe Thr Val Tyr Lys Gly Ala Glu Val Ala
1 5 10 15

His Phe

<210> 112

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

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

<220>
<221> VARIANT
<222> (448)..(448)
<223> /replace=" "

<220>
<221> MISC_FEATURE
<222> (1)..(448)
<223> /note="Variant residues given in the sequence have no preference with respect to those in the annotations for variant positions"

<400> 112
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Gly Arg
20 25 30

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Tyr Gly Thr Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Glu Ser Gln Glu Ser Pro Tyr Asn Asn Trp Phe Asp Pro Trp Gly
100 105 110

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

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

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

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

165

170

175

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

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

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

Pro Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Glu 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 Gln Glu Asp Pro
260 265 270

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

Lys Thr Lys Pro Arg Glu Glu Gln Phe 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 Gly Leu Pro Ser Ser 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 Gln 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 Arg Leu Thr Val Asp Lys Ser
405 410 415

Arg Trp Gln Glu 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 Leu Gly Lys
 435 440 445

<210> 113

<211> 448

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<220>

<221> VARIANT

<222> (448)..(448)

<223> /replace=" "

<220>

<221> MISC_FEATURE

<222> (1)..(448)

<223> /note="Variant residues given in the sequence have no
 preference with respect to those in the annotations
 for variant positions"

<400> 113

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Glu Gly Arg
 20 25 30

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45

Gly Tyr Ile Tyr Gly Ser Gly Ser Thr Lys Tyr Asn Pro Ser Leu Lys
 50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg Glu Ser Gln Glu Ser Pro Tyr Asn Asn Trp Phe Asp Pro Trp Gly
 100 105 110

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

Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala

130

135

140

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

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

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

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

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

Pro Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Glu 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 Gln Glu Asp Pro
260 265 270

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

Lys Thr Lys Pro Arg Glu Glu Gln Phe 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 Gly Leu Pro Ser Ser 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 Gln 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 Arg Leu Thr Val Asp Lys Ser
 405 410 415
 Arg Trp Gln Glu 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 Leu Gly Lys
 435 440 445

 <210> 114
 <211> 451
 <212> PRT
 <213> Artificial Sequence

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

 <220>
 <221> VARIANT
 <222> (451)..(451)
 <223> /replace=" "

 <220>
 <221> MISC_FEATURE
 <222> (1)..(451)
 <223> /note="Variant residues given in the sequence have no
 preference with respect to those in the annotations
 for variant positions"

 <400> 114
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

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

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

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

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

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

 Ala Arg Gly Gly Leu Tyr Gly Ser Gly Ser Tyr Leu Ser Asp Phe Asp

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

355

360

365

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

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

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

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

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

Leu Gly Lys
 450

<210> 115

<211> 448

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<220>

<221> VARIANT

<222> (448)..(448)

<223> /replace=" "

<220>

<221> MISC_FEATURE

<222> (1)..(448)

<223> /note="Variant residues given in the sequence have no preference with respect to those in the annotations for variant positions"

<400> 115

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Glu Arg Tyr
 20 25 30

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45

Gly Tyr Ile Tyr Gly Arg Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys

50

55

60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Glu Ser Gln Glu Ser Pro Tyr Asn Asn Trp Phe Asp Pro Trp Gly
100 105 110

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

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

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

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

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

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

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

Pro Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Glu 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 Gln Glu Asp Pro
260 265 270

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

Lys Thr Lys Pro Arg Glu Glu Gln Phe 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

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305              310              315              320

Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser 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 Gln 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 Arg Leu Thr Val Asp Lys Ser
      405              410              415

Arg Trp Gln Glu 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 Leu Gly Lys
      435              440              445

<210> 116
<211> 451
<212> PRT
<213> Artificial Sequence

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

<220>
<221> VARIANT
<222> (451)..(451)
<223> /replace=" "

<220>
<221> MISC_FEATURE
<222> (1)..(451)
<223> /note="Variant residues given in the sequence have no
      preference with respect to those in the annotations
      for variant positions"

<400> 116
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1          5          10          15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Asn

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20

25

30

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

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

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

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

Ala Arg Gly Gly Leu Tyr Gly Ser Gly Ser Tyr Leu Ser Asp Phe Asp
 100 105 110

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

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

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

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

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

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

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

Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Glu Gly
 225 230 235 240

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

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

Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val

275

280

285

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

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

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

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

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

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

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

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

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

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

Leu Gly Lys
450

<210> 117

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<220>

<221> VARIANT

<222> (451)..(451)

<223> /replace=" "

<220>

<221> MISC_FEATURE

<222> (1)..(451)

<223> /note="Variant residues given in the sequence have no preference with respect to those in the annotations for variant positions"

<400> 117

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

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

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

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

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

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

Ala Arg Gly Gly Leu Tyr Gly Ser Gly Ser Tyr Leu Ser Asp Phe Asp
100 105 110

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

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

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

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

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

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

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

Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Glu Gly

225		230		235		240									
Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met
				245					250					255	
Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	Gln
			260					265					270		
Glu	Asp	Pro	Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val
		275					280					285			
His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	Asn	Ser	Thr	Tyr
	290					295					300				
Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly
305					310					315					320
Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Pro	Ser	Ser	Ile
				325					330					335	
Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val
			340					345					350		
Tyr	Thr	Leu	Pro	Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser
		355					360					365			
Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu
	370					375					380				
Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro
385					390					395					400
Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Arg	Leu	Thr	Val
				405					410					415	
Asp	Lys	Ser	Arg	Trp	Gln	Glu	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met
			420					425					430		
His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser
		435					440					445			
Leu	Gly	Lys													
	450														

<210> 118
 <211> 13
 <212> PRT
 <213> Homo sapiens

<400> 118

Arg Gly Asn Val Ile Ser Ser His Gly Asn Pro Ile Leu
1 5 10

<210> 119

<211> 330

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 119

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

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
115 120 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
195 200 205

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu
225 230 235 240

Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
290 295 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 120
<211> 329
<212> PRT
<213> Artificial Sequence

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

<400> 120
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
1 5 10 15

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr

65		70		75		80
Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys	85		90		95	
Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys	100		105		110	
Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro	115		120		125	
Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys	130		135		140	
Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp	145		150		155	160
Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu	165		170		175	
Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu	180		185		190	
His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn	195		200		205	
Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly	210		215		220	
Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu	225		230		235	240
Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr	245		250		255	
Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn	260		265		270	
Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe	275		280		285	
Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn	290		295		300	
Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr	305		310		315	320
Gln Lys Ser Leu Ser Leu Ser Pro Gly						

<210> 121
<211> 20
<212> PRT
<213> Homo sapiens

<400> 121
Met Ile Asn Asn Asn Leu Arg His Thr Asp Glu Met Phe Trp Asn His
1 5 10 15

Val Ser Met Cys
 20

<210> 122
<211> 7
<212> PRT
<213> Artificial Sequence

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

<220>
<221> VARIANT
<222> (5)..(5)
<223> /replace="Ser" or "Arg" or "Lys"

<220>
<221> VARIANT
<222> (6)..(6)
<223> /replace="Tyr" or "Ser"

<220>
<221> VARIANT
<222> (7)..(7)
<223> /replace="Asn"

<220>
<221> MISC_FEATURE
<222> (1)..(7)
<223> /note="Variant residues given in the sequence have no
 preference with respect to those in the annotations
 for variant positions"

<400> 122
Gly Phe Thr Phe His Arg Tyr
1 5

<210> 123
<211> 6
<212> PRT
<213> Artificial Sequence

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

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<220>
<221> VARIANT
<222> (1)..(1)
<223> /replace="Thr"

<220>
<221> VARIANT
<222> (3)..(3)
<223> /replace="Thr"

<220>
<221> VARIANT
<222> (5)..(5)
<223> /replace="Gly" or "Ser"

<220>
<221> VARIANT
<222> (6)..(6)
<223> /replace="Ser" or "Leu" or "Tyr"

<220>
<221> MISC_FEATURE
<222> (1)..(6)
<223> /note="Variant residues given in the sequence have no
      preference with respect to those in the annotations
      for variant positions"

<400> 123
Ser Gly Ser Gly Met Asn
1      5

<210> 124
<211> 7
<212> PRT
<213> Artificial Sequence

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

<220>
<221> VARIANT
<222> (5)..(5)
<223> /replace="Ser"

<220>
<221> VARIANT
<222> (6)..(6)
<223> /replace="Gly" or "Ser"

<220>
<221> VARIANT
<222> (7)..(7)
<223> /replace="Arg"

<220>
<221> MISC_FEATURE
<222> (1)..(7)
<223> /note="Variant residues given in the sequence have no

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preference with respect to those in the annotations
for variant positions"

<400> 124

Gly Gly Ser Ile Glu Arg Tyr

1 5

<210> 125

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<220>

<221> VARIANT

<222> (2)..(2)

<223> /replace="Ser"

<220>

<221> VARIANT

<222> (3)..(3)

<223> /replace="Ser" or "Thr"

<220>

<221> MISC_FEATURE

<222> (1)..(5)

<223> /note="Variant residues given in the sequence have no
preference with respect to those in the annotations
for variant positions"

<400> 125

Tyr Gly Arg Gly Ser

1 5

<210> 126

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<220>

<221> VARIANT

<222> (5)..(5)

<223> /replace="Ser" or "Arg" or "Lys"

<220>

<221> VARIANT

<222> (6)..(6)

<223> /replace="Tyr" or "Ser"

<220>

<221> VARIANT

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<222> (7)..(7)
<223> /replace="Asn"

<220>
<221> MISC_FEATURE
<222> (1)..(10)
<223> /note="Variant residues given in the sequence have no
      preference with respect to those in the annotations
      for variant positions"

<400> 126
Gly Phe Thr Phe His Arg Tyr Ala Met Ser
1           5           10

<210> 127
<211> 10
<212> PRT
<213> Artificial Sequence

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

<220>
<221> VARIANT
<222> (5)..(5)
<223> /replace="Ser"

<220>
<221> VARIANT
<222> (6)..(6)
<223> /replace="Gly" or "Ser"

<220>
<221> VARIANT
<222> (7)..(7)
<223> /replace="Arg"

<220>
<221> MISC_FEATURE
<222> (1)..(10)
<223> /note="Variant residues given in the sequence have no
      preference with respect to those in the annotations
      for variant positions"

<400> 127
Gly Gly Ser Ile Glu Arg Tyr Tyr Trp Ser
1           5           10

<210> 128
<211> 8
<212> PRT
<213> Artificial Sequence

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

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<220>
<221> VARIANT
<222> (5)..(5)
<223> /replace="Ser" or "Arg" or "Lys"

<220>
<221> VARIANT
<222> (6)..(6)
<223> /replace="Tyr" or "Ser"

<220>
<221> VARIANT
<222> (7)..(7)
<223> /replace="Asn"

<220>
<221> MISC_FEATURE
<222> (1)..(8)
<223> /note="Variant residues given in the sequence have no
      preference with respect to those in the annotations
      for variant positions"

<400> 128
Gly Phe Thr Phe His Arg Tyr Ala
1           5

<210> 129
<211> 8
<212> PRT
<213> Artificial Sequence

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

<220>
<221> VARIANT
<222> (2)..(2)
<223> /replace="Thr"

<220>
<221> VARIANT
<222> (4)..(4)
<223> /replace="Thr"

<220>
<221> VARIANT
<222> (6)..(6)
<223> /replace="Gly" or "Ser"

<220>
<221> VARIANT
<222> (7)..(7)
<223> /replace="Ser" or "Leu" or "Tyr"

<220>
<221> MISC_FEATURE
<222> (1)..(8)
<223> /note="Variant residues given in the sequence have no
      preference with respect to those in the annotations
      for variant positions"

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<400> 129
Ile Ser Gly Ser Gly Met Asn Thr
1 5

<210> 130
<211> 8
<212> PRT
<213> Artificial Sequence

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

<220>
<221> VARIANT
<222> (5)..(5)
<223> /replace="Ser"

<220>
<221> VARIANT
<222> (6)..(6)
<223> /replace="Gly" or "Ser"

<220>
<221> VARIANT
<222> (7)..(7)
<223> /replace="Arg"

<220>
<221> MISC_FEATURE
<222> (1)..(8)
<223> /note="Variant residues given in the sequence have no preference with respect to those in the annotations for variant positions"

<400> 130
Gly Gly Ser Ile Glu Arg Tyr Tyr
1 5

<210> 131
<211> 7
<212> PRT
<213> Artificial Sequence

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

<220>
<221> VARIANT
<222> (3)..(3)
<223> /replace="Ser"

<220>
<221> VARIANT
<222> (4)..(4)
<223> /replace="Ser" or "Thr"

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<220>
<221> MISC_FEATURE
<222> (1)..(7)
<223> /note="Variant residues given in the sequence have no
        preference with respect to those in the annotations
        for variant positions"

<400> 131
Ile Tyr Gly Arg Gly Ser Thr
1           5

<210> 132
<211> 486
<212> PRT
<213> Artificial Sequence

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

<400> 132
Met Ala Leu Pro Val Thr Ala Leu Leu Leu Pro Leu Ala Leu Leu
1           5           10           15

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

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

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

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

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

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

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

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

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

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Leu Ser Val Thr Cys Thr Val Ser Gly Val Ser Leu Pro Asp Tyr Gly
 165 170 175

Val Ser Trp Ile Arg Gln Pro Pro Arg Lys Gly Leu Glu Trp Leu Gly
 180 185 190

Val Ile Trp Gly Ser Glu Thr Thr Tyr Tyr Asn Ser Ala Leu Lys Ser
 195 200 205

Arg Leu Thr Ile Ile Lys Asp Asn Ser Lys Ser Gln Val Phe Leu Lys
 210 215 220

Met Asn Ser Leu Gln Thr Asp Asp Thr Ala Ile Tyr Tyr Cys Ala Lys
 225 230 235 240

His Tyr Tyr Tyr Gly Gly Ser Tyr Ala Met Asp Tyr Trp Gly Gln Gly
 245 250 255

Thr Ser Val Thr Val Ser Ser Thr Thr Thr Pro Ala Pro Arg Pro Pro
 260 265 270

Thr Pro Ala Pro Thr Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu
 275 280 285

Ala Cys Arg Pro Ala Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp
 290 295 300

Phe Ala Cys Asp Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly
 305 310 315 320

Val Leu Leu Leu Ser Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg
 325 330 335

Lys Lys Leu Leu Tyr Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln
 340 345 350

Thr Thr Gln Glu Glu Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu
 355 360 365

Glu Gly Gly Cys Glu Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala
 370 375 380

Pro Ala Tyr Lys Gln Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu
 385 390 395 400

Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp
 405 410 415

Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu
420 425 430

Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile
435 440 445

Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr
450 455 460

Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met
465 470 475 480

Gln Ala Leu Pro Pro Arg
485

<210> 133
<211> 465
<212> PRT
<213> Artificial Sequence

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

<400> 133
Asp Ile Gln Met Thr Gln Thr Thr Ser Ser Leu Ser Ala Ser Leu Gly
1 5 10 15

Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Asp Ile Ser Lys Tyr
20 25 30

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

Tyr His Thr Ser Arg Leu His Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Ser Asn Leu Glu Gln
65 70 75 80

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

Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Thr Gly Gly Gly Gly Ser
100 105 110

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Lys Leu Gln Glu
115 120 125

Ser Gly Pro Gly Leu Val Ala Pro Ser Gln Ser Leu Ser Val Thr Cys

130

135

140

Thr Val Ser Gly Val Ser Leu Pro Asp Tyr Gly Val Ser Trp Ile Arg
 145 150 155 160

Gln Pro Pro Arg Lys Gly Leu Glu Trp Leu Gly Val Ile Trp Gly Ser
 165 170 175

Glu Thr Thr Tyr Tyr Asn Ser Ala Leu Lys Ser Arg Leu Thr Ile Ile
 180 185 190

Lys Asp Asn Ser Lys Ser Gln Val Phe Leu Lys Met Asn Ser Leu Gln
 195 200 205

Thr Asp Asp Thr Ala Ile Tyr Tyr Cys Ala Lys His Tyr Tyr Tyr Gly
 210 215 220

Gly Ser Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Ser Val Thr Val
 225 230 235 240

Ser Ser Thr Thr Thr Pro Ala Pro Arg Pro Pro Thr Pro Ala Pro Thr
 245 250 255

Ile Ala Ser Gln Pro Leu Ser Leu Arg Pro Glu Ala Cys Arg Pro Ala
 260 265 270

Ala Gly Gly Ala Val His Thr Arg Gly Leu Asp Phe Ala Cys Asp Ile
 275 280 285

Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu Ser
 290 295 300

Leu Val Ile Thr Leu Tyr Cys Lys Arg Gly Arg Lys Lys Leu Leu Tyr
 305 310 315 320

Ile Phe Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu
 325 330 335

Asp Gly Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu
 340 345 350

Leu Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Lys Gln
 355 360 365

Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu
 370 375 380

Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly

385		390		395		400									
Lys	Pro	Arg	Arg	Lys	Asn	Pro	Gln	Glu	Gly	Leu	Tyr	Asn	Glu	Leu	Gln
				405					410					415	
Lys	Asp	Lys	Met	Ala	Glu	Ala	Tyr	Ser	Glu	Ile	Gly	Met	Lys	Gly	Glu
			420					425					430		
Arg	Arg	Arg	Gly	Lys	Gly	His	Asp	Gly	Leu	Tyr	Gln	Gly	Leu	Ser	Thr
		435					440					445			
Ala	Thr	Lys	Asp	Thr	Tyr	Asp	Ala	Leu	His	Met	Gln	Ala	Leu	Pro	Pro
	450					455					460				
Arg															
465															
<210>	134														
<211>	521														
<212>	PRT														
<213>	Homo sapiens														
<400>	134														
Trp	Glu	Leu	Thr	Ile	Leu	His	Thr	Asn	Asp	Val	His	Ser	Arg	Leu	Glu
1				5					10					15	
Gln	Thr	Ser	Glu	Asp	Ser	Ser	Lys	Cys	Val	Asn	Ala	Ser	Arg	Cys	Met
			20					25					30		
Gly	Gly	Val	Ala	Arg	Leu	Phe	Thr	Lys	Val	Gln	Gln	Ile	Arg	Arg	Ala
		35					40					45			
Glu	Pro	Asn	Val	Leu	Leu	Leu	Asp	Ala	Gly	Asp	Gln	Tyr	Gln	Gly	Thr
	50					55					60				
Ile	Trp	Phe	Thr	Val	Tyr	Lys	Gly	Ala	Glu	Val	Ala	His	Phe	Met	Asn
65					70					75					80
Ala	Leu	Arg	Tyr	Asp	Ala	Met	Ala	Leu	Gly	Asn	His	Glu	Phe	Asp	Asn
				85					90					95	
Gly	Val	Glu	Gly	Leu	Ile	Glu	Pro	Leu	Leu	Lys	Glu	Ala	Lys	Phe	Pro
			100					105					110		
Ile	Leu	Ser	Ala	Asn	Ile	Lys	Ala	Lys	Gly	Pro	Leu	Ala	Ser	Gln	Ile
		115					120					125			
Ser	Gly	Leu	Tyr	Leu	Pro	Tyr	Lys	Val	Leu	Pro	Val	Gly	Asp	Glu	Val
	130					135					140				

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

Lys Gly Ser Thr Leu Lys Lys Ala Phe Glu His Ser Val His Arg Tyr
405 410 415

Gly Gln Ser Thr Gly Glu Phe Leu Gln Val Gly Gly Ile His Val Val
420 425 430

Tyr Asp Leu Ser Arg Lys Pro Gly Asp Arg Val Val Lys Leu Asp Val
435 440 445

Leu Cys Thr Lys Cys Arg Val Pro Ser Tyr Asp Pro Leu Lys Met Asp
450 455 460

Glu Val Tyr Lys Val Ile Leu Pro Asn Phe Leu Ala Asn Gly Gly Asp
465 470 475 480

Gly Phe Gln Met Ile Lys Asp Glu Leu Leu Arg His Asp Ser Gly Asp
485 490 495

Gln Asp Ile Asn Val Val Ser Thr Tyr Ile Ser Lys Met Lys Val Ile
500 505 510

Tyr Pro Ala Val Glu Gly Arg Ile Lys
515 520

<210> 135
<211> 10
<212> PRT
<213> Artificial Sequence

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

<400> 135
Gly Phe Thr Phe Arg Ser Tyr Ala Met Ser
1 5 10

<210> 136
<211> 17
<212> PRT
<213> Artificial Sequence

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

<400> 136
Ala Ile Thr Gly Ser Gly Gly Leu Thr Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 137
<211> 5
<212> PRT
<213> Artificial Sequence

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

<400> 137
Ser Tyr Ala Met Ser
1 5

<210> 138
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 138
Gly Phe Thr Phe Arg Ser Tyr
1 5

<210> 139
<211> 6
<212> PRT
<213> Artificial Sequence

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

<400> 139
Thr Gly Ser Gly Gly Leu
1 5

<210> 140
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 140
Gly Phe Thr Phe Arg Ser Tyr Ala
1 5

<210> 141

<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 141
Ile Thr Gly Ser Gly Gly Leu Thr
1 5

<210> 142
<211> 124
<212> PRT
<213> Artificial Sequence

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

<400> 142
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

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

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

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

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

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

Ala Arg Gly Gly Leu Tyr Gly Ser Gly Ser Tyr Leu Ser Asp Phe Asp
100 105 110

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

<210> 143
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<221> source

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

<400> 143
gaggtgcagc tgttggagtc tgggggaggc ttggtacagc ctgggggggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttcgt agctatgcc a tgagctgggt ccgccaggct 120
ccagggaagg ggctggagtg ggtctcagct attacgggaa gtggtggttt gacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaata ga acagcctgag agccgaggac acggcggtgt actactgcgc cagaggtgga 300
ttgtacggaa gcggaagcta cttgagtga c ttcgacctat gggggagagg taccttggtc 360
accgtctcct ca 372

<210> 144
<211> 321
<212> DNA
<213> Artificial Sequence

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

<400> 144
gaaatagtgt tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagggttggc agcaacttag cctggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcatccacca gggccactgg tatcccagcc 180
aggttcagt ggcagtgggtc tgggacagag ttactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtcagcag cacaatgcct tcccttacac ttttggcgga 300
gggaccaagg ttgagatcaa a 321

<210> 145
<211> 10
<212> PRT
<213> Artificial Sequence

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

<400> 145
Gly Phe Thr Phe Lys Ser Tyr Ala Met Ser
1 5 10

<210> 146
<211> 17
<212> PRT
<213> Artificial Sequence

<220>

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

<400> 146
Ala Ile Ser Gly Ser Gly Ser Tyr Thr Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 147
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 147
Gly Phe Thr Phe Lys Ser Tyr
1 5

<210> 148
<211> 6
<212> PRT
<213> Artificial Sequence

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

<400> 148
Ser Gly Ser Gly Ser Tyr
1 5

<210> 149
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 149
Gly Phe Thr Phe Lys Ser Tyr Ala
1 5

<210> 150
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

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

<400> 150
Ile Ser Gly Ser Gly Ser Tyr Thr
1           5

<210> 151
<211> 124
<212> PRT
<213> Artificial Sequence

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

<400> 151
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1           5           10           15

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

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

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

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

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

Ala Arg Gly Gly Leu Tyr Gly Ser Gly Ser Tyr Leu Ser Asp Phe Asp
      100           105           110

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

<210> 152
<211> 372
<212> DNA
<213> Artificial Sequence

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

<400> 152
gaggtgcagc tggttgagtc tgggggaggc ttggtacagc ctgggggggc cctgagactc

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tcctgtgcag cctctggatt cacctttaag agctatgcca tgagttgggt ccgccaggct	120
ccagggaagg ggctggagtg ggtctcagct attagtggaa gtggttcgta tacatactac	180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat	240
ctgcaaatga acagcctgag agccgaggac acggcggtgt actactgcgc cagaggtgga	300
ttgtacggaa gcggaagcta cttgagtgc ttcgacctat gggggagagg taccttggtc	360
accgtctcct ca	372

<210> 153
 <211> 10
 <212> PRT
 <213> Artificial Sequence

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

<400> 153
 Gly Phe Thr Phe Ser Ser Tyr Ala Met Ser
 1 5 10

<210> 154
 <211> 17
 <212> PRT
 <213> Artificial Sequence

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

<400> 154
 Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 155
 <211> 7
 <212> PRT
 <213> Artificial Sequence

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

<400> 155
 Gly Phe Thr Phe Ser Ser Tyr
 1 5

<210> 156

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

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

<400> 156
Ser Gly Ser Gly Gly Ser
1 5

<210> 157
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 157
Gly Phe Thr Phe Ser Ser Tyr Ala
1 5

<210> 158
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 158
Ile Ser Gly Ser Gly Gly Ser Thr
1 5

<210> 159
<211> 124
<212> PRT
<213> Artificial Sequence

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

<400> 159
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

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

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val

35

40

45

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

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

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

Ala Arg Gly Gly Leu Tyr Gly Ser Gly Ser Tyr Leu Ser Asp Phe Asp
 100 105 110

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

<210> 160

<211> 372

<212> DNA

<213> Artificial Sequence

<220>

<221> source

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

<400> 160

gaggtgcagc tgttgagtc tgggggaggc ttggtacagc ctgggggggc cctgagactc 60
 tcctgtgcag cctctggatt cacctttagc agctatgcca tgagctgggt ccgccaggct 120
 ccagggaagg ggctggagtg ggtctcagct attagtggta gtggtggtag cacatactac 180
 gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagaa cacgctgtat 240
 ctgcaaatac acagcctgag agccgaggac acggcggtgt actactgcg cagaggtgga 300
 ttgtacggaa gcggaagcta cttgagtgc ttcgacctat gggggagagg taccttggtc 360
 accgtctcct ca 372

<210> 161

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 161

Gly Gly Ser Ile Ser Ser Tyr Tyr Trp Ser
 1 5 10

<210> 162
<211> 16
<212> PRT
<213> Artificial Sequence

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

<400> 162
Tyr Ile Tyr Ser Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 163
<211> 5
<212> PRT
<213> Artificial Sequence

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

<400> 163
Ser Tyr Tyr Trp Ser
1 5

<210> 164
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 164
Gly Gly Ser Ile Ser Ser Tyr
1 5

<210> 165
<211> 5
<212> PRT
<213> Artificial Sequence

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

<400> 165
Tyr Ser Ser Gly Ser
1 5

<210> 166
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 166
Gly Gly Ser Ile Ser Ser Tyr Tyr
1 5

<210> 167
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 167
Ile Tyr Ser Ser Gly Ser Thr
1 5

<210> 168
<211> 121
<212> PRT
<213> Artificial Sequence

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

<400> 168
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

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

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Tyr Ser Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Glu Ser Gln Glu Ser Pro Tyr Asn Asn Trp Phe Asp Pro Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 169
<211> 363
<212> DNA
<213> Artificial Sequence

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

<400> 169
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agttactact ggagctggat ccggcagccc 120
ccagggaagg gactggagtg gattgggtat atctatagta gtgggagcac caactacaac 180
ccctccctca agagtcgagt caccatatca gtagacacgt ccaagaacca gttctccctg 240
aagctgagtt ctgtgaccgc cgcagacacg gcggtgtact actgcgccag agaatctcag 300
gagagtccat acaacaattg gttcgaccca tggggacagg gtacattggt caccgtctcc 360
tca 363

<210> 170
<211> 321
<212> DNA
<213> Artificial Sequence

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

<400> 170
gacatccaga tgaccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtca ggggtattagc agctggttag cctggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagat ttcaactctca ccatacagcag cctgcagcct 240
gaagattttg caacttatta ctgtcagcag ggaaacagtt tccctaggac ttttggcgga 300
gggaccaagg ttgagatcaa a 321

<210> 171
<211> 527
<212> PRT
<213> Artificial Sequence

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

<400> 171

Trp Glu Leu Thr Ile Leu His Thr Asn Asp Val His Ser Arg Leu Glu
1 5 10 15

Gln Thr Ser Glu Asp Ser Ser Lys Cys Val Asn Ala Ser Arg Cys Met
20 25 30

Gly Gly Val Ala Arg Leu Phe Thr Lys Val Gln Gln Ile Arg Arg Ala
35 40 45

Glu Pro Asn Val Leu Leu Leu Asp Ala Gly Asp Gln Tyr Gln Gly Thr
50 55 60

Ile Trp Phe Thr Val Tyr Lys Gly Ala Glu Val Ala His Phe Met Asn
65 70 75 80

Ala Leu Arg Tyr Asp Ala Met Ala Leu Gly Asn His Glu Phe Asp Asn
85 90 95

Gly Val Glu Gly Leu Ile Glu Pro Leu Leu Lys Glu Ala Lys Phe Pro
100 105 110

Ile Leu Ser Ala Asn Ile Lys Ala Lys Gly Pro Leu Ala Ser Gln Ile
115 120 125

Ser Gly Leu Tyr Leu Pro Tyr Lys Val Leu Pro Val Gly Asp Glu Val
130 135 140

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

Pro Gly Thr Asn Leu Val Phe Glu Asp Glu Ile Thr Ala Leu Gln Pro
165 170 175

Glu Val Asp Lys Leu Lys Thr Leu Asn Val Asn Lys Ile Ile Ala Leu
180 185 190

Gly His Ser Gly Phe Glu Met Asp Lys Leu Ile Ala Gln Lys Val Arg
195 200 205

Gly Val Asp Val Val Val Gly Gly His Ser Asn Thr Phe Leu Tyr Thr
210 215 220

Gly Asn Pro Pro Ser Lys Glu Val Pro Ala Gly Lys Tyr Pro Phe Ile
225 230 235 240

Val Thr Ser Asp Asp Gly Arg Lys Val Pro Val Val Gln Ala Tyr Ala
245 250 255

Phe	Gly	Lys	Tyr	Leu	Gly	Tyr	Leu	Lys	Ile	Glu	Phe	Asp	Glu	Arg	Gly	
			260					265					270			
Asn	Val	Ile	Ser	Ser	His	Gly	Asn	Pro	Ile	Leu	Leu	Asn	Ser	Ser	Ile	
		275					280					285				
Pro	Glu	Asp	Pro	Ser	Ile	Lys	Ala	Asp	Ile	Asn	Lys	Trp	Arg	Ile	Lys	
	290					295					300					
Leu	Asp	Asn	Tyr	Ser	Thr	Gln	Glu	Leu	Gly	Lys	Thr	Ile	Val	Tyr	Leu	
305					310					315					320	
Asp	Gly	Ser	Ser	Gln	Ser	Cys	Arg	Phe	Arg	Glu	Cys	Asn	Met	Gly	Asn	
				325					330					335		
Leu	Ile	Cys	Asp	Ala	Met	Ile	Asn	Asn	Asn	Leu	Arg	His	Ala	Asp	Glu	
			340					345					350			
Thr	Phe	Trp	Asn	His	Val	Ser	Met	Cys	Ile	Leu	Asn	Gly	Gly	Gly	Ile	
		355					360					365				
Arg	Ser	Pro	Ile	Asp	Glu	Arg	Asn	Asn	Gly	Thr	Ile	Thr	Trp	Glu	Asn	
	370					375					380					
Leu	Ala	Ala	Val	Leu	Pro	Phe	Gly	Gly	Thr	Phe	Asp	Leu	Val	Gln	Leu	
385					390					395					400	
Lys	Gly	Ser	Thr	Leu	Lys	Lys	Ala	Phe	Glu	His	Ser	Val	His	Arg	Tyr	
				405					410					415		
Gly	Gln	Ser	Thr	Gly	Glu	Phe	Leu	Gln	Val	Gly	Gly	Ile	His	Val	Val	
			420					425					430			
Tyr	Asp	Leu	Ser	Arg	Lys	Pro	Gly	Asp	Arg	Val	Val	Lys	Leu	Asp	Val	
		435					440					445				
Leu	Cys	Thr	Lys	Cys	Arg	Val	Pro	Ser	Tyr	Asp	Pro	Leu	Lys	Met	Asp	
	450					455					460					
Glu	Val	Tyr	Lys	Val	Ile	Leu	Pro	Asn	Phe	Leu	Ala	Asn	Gly	Gly	Asp	
465					470					475					480	
Gly	Phe	Gln	Met	Ile	Lys	Asp	Glu	Leu	Leu	Arg	His	Asp	Ser	Gly	Asp	
				485					490					495		
Gln	Asp	Ile	Asn	Val	Val	Ser	Thr	Tyr	Ile	Ser	Lys	Met	Lys	Val	Ile	
			500					505					510			

Tyr Pro Ala Val Glu Gly Arg Ile Lys His His His His His His
515 520 525

<210> 172

<211> 447

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 172

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

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

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

Gly Gly Val Ile Pro Ile Val Asp Ile Ala Asn Tyr Ala Gln Arg Phe
50 55 60

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

<210> 173
<211> 215
<212> PRT
<213> Artificial Sequence

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

<400> 173
Glu Thr Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

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

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

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

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

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

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

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

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

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

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

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

Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 174

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 174

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

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

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

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

Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr 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 Gly Leu Trp Glu Val Arg Ala Leu Pro Ser Val Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 175

<211> 109

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 175

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

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

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

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

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

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

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

<210> 176
<211> 4
<212> PRT
<213> Artificial Sequence

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

<400> 176
Arg Gly Asp Ser
1

<210> 177
<211> 449
<212> PRT
<213> Artificial Sequence

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

<400> 177
Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

Tyr Met Lys Trp Val Lys Gln Ser His Gly Lys Ser Leu Glu Trp Met
35 40 45

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

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

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

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

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

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

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

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

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

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

Lys

<210> 178

<211> 485

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 178

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

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

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

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

Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr

65		70		75		80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr	85		90		95	
Tyr Cys Val Arg His Gly Asn Phe Gly Asp Ser Tyr Val Ser Trp Phe	100		105		110	
Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Lys Pro	115		120		125	
Gly Ser Gly Lys Pro Gly Ser Gly Lys Pro Gly Ser Gly Lys Pro Gly	130		135		140	
Ser Gln Ala Val Val Thr Gln Glu Pro Ser Leu Thr Val Ser Pro Gly	145		150		155	160
Gly Thr Val Thr Leu Thr Cys Gly Ser Ser Thr Gly Ala Val Thr Thr	165		170		175	
Ser Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Lys Ser Pro Arg	180		185		190	
Gly Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Gly Val Pro Ala Arg	195		200		205	
Phe Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Ser Gly	210		215		220	
Ala Gln Pro Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Leu Trp Tyr Ser	225		230		235	240
Asn His Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Glu Pro	245		250		255	
Lys Ser Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Pro	260		265		270	
Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr	275		280		285	
Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val	290		295		300	
Lys His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val	305		310		315	320
Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser						

325

330

335

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 340 345 350

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 355 360 365

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 370 375 380

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

Val Lys Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 405 410 415

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 420 425 430

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 435 440 445

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 450 455 460

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
 465 470 475 480

Leu Ser Pro Gly Lys
 485

<210> 179

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 179

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

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Asn Thr
 20 25 30

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

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

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

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

Asp Tyr Ser Tyr Pro Tyr Thr Phe Gly Gly 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> 180

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 180

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

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

Asn	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Met	35	40	45
Gly	Ala	Ile	Tyr	Pro	Gly	Asn	Gly	Asp	Thr	Ser	Tyr	Asn	Gln	Lys	Phe	50	55	60
Gln	Gly	Arg	Val	Thr	Ile	Thr	Ala	Asp	Lys	Ser	Ile	Ser	Thr	Ala	Tyr	65	70	75
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	85	90	95
Ala	Arg	Ser	Thr	Tyr	Tyr	Gly	Gly	Asp	Trp	Tyr	Phe	Asn	Val	Trp	Gly	100	105	110
Ala	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	115	120	125
Val	Phe	Pro	Leu	Ala	Pro	Ser	Ser	Lys	Ser	Thr	Ser	Gly	Gly	Thr	Ala	130	135	140
Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	145	150	155
Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	165	170	175
Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val	180	185	190
Pro	Ser	Ser	Ser	Leu	Gly	Thr	Gln	Thr	Tyr	Ile	Cys	Asn	Val	Asn	His	195	200	205
Lys	Pro	Ser	Asp	Thr	Lys	Val	Asp	Lys	Lys	Val	Glu	Pro	Lys	Ser	Cys	210	215	220
Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Pro	Val	Ala	Gly	225	230	235
Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	245	250	255
Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Lys	His	Glu	260	265	270
Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	275	280	285

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

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

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

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

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

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

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

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

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

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

Gly Lys
450

<210> 181

<211> 485

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 181

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

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

Ala	Met	Asn	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val		
	35						40					45					
Gly	Arg	Ile	Arg	Ser	Lys	Tyr	Asn	Asn	Tyr	Ala	Thr	Tyr	Tyr	Ala	Asp		
	50					55					60						
Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asp	Ser	Lys	Asn	Thr		
65					70					75					80		
Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr		
				85					90					95			
Tyr	Cys	Val	Arg	His	Gly	Asn	Phe	Gly	Asp	Ser	Tyr	Val	Ser	Trp	Phe		
			100					105						110			
Ala	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Gly	Lys	Pro		
		115					120										
Gly	Ser	Gly	Lys	Pro	Gly	Ser	Gly	Lys	Pro	Gly	Ser	Gly	Lys	Pro	Gly		
	130					135					140						
Ser	Gln	Ala	Val	Val	Thr	Gln	Glu	Pro	Ser	Leu	Thr	Val	Ser	Pro	Gly		
145					150					155					160		
Gly	Thr	Val	Thr	Leu	Thr	Cys	Gly	Ser	Ser	Thr	Gly	Ala	Val	Thr	Thr		
				165					170					175			
Ser	Asn	Tyr	Ala	Asn	Trp	Val	Gln	Gln	Lys	Pro	Gly	Lys	Ser	Pro	Arg		
			180					185						190			
Gly	Leu	Ile	Gly	Gly	Thr	Asn	Lys	Arg	Ala	Pro	Gly	Val	Pro	Ala	Arg		
		195					200					205					
Phe	Ser	Gly	Ser	Leu	Leu	Gly	Gly	Lys	Ala	Ala	Leu	Thr	Ile	Ser	Gly		
	210					215					220						
Ala	Gln	Pro	Glu	Asp	Glu	Ala	Asp	Tyr	Tyr	Cys	Ala	Leu	Trp	Tyr	Ser		
225					230					235					240		
Asn	His	Trp	Val	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Thr	Val	Leu	Glu	Pro		
				245					250					255			
Lys	Ser	Ser	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Pro		
			260					265					270				
Val	Ala	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr		
		275					280					285					

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
290 295 300

Lys His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
305 310 315 320

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
325 330 335

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
340 345 350

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
355 360 365

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
370 375 380

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

Val Lys Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
405 410 415

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
420 425 430

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
435 440 445

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
450 455 460

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
465 470 475 480

Leu Ser Pro Gly Lys
485

<210> 182

<211> 213

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 182

Gln Ile Val Leu 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	Ser	Ser	Val	Ser	Tyr	Ile
		20						25					30		
His	Trp	Phe	Gln	Gln	Lys	Pro	Gly	Lys	Ser	Pro	Lys	Pro	Leu	Ile	Tyr
		35					40					45			
Ala	Thr	Ser	Asn	Leu	Ala	Ser	Gly	Val	Pro	Val	Arg	Phe	Ser	Gly	Ser
	50					55					60				
Gly	Ser	Gly	Thr	Asp	Tyr	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Gln	Pro	Glu
65					70					75					80
Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Trp	Thr	Ser	Asn	Pro	Pro	Thr
				85					90					95	
Phe	Gly	Gly	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	Cys											
	210														

<210> 183
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 183
 Asn Trp Val Asn Val Ile Ser Asp Leu Lys Lys Ile Glu Asp Leu Ile
 1 5 10 15

Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His
20 25 30

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

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
50 55 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
85 90 95

Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn
100 105 110

Thr Ser

<210> 184

<211> 170

<212> PRT

<213> Homo sapiens

<400> 184

Ile Thr Cys Pro Pro Pro Met Ser Val Glu His Ala Asp Ile Trp Val
1 5 10 15

Lys Ser Tyr Ser Leu Tyr Ser Arg Glu Arg Tyr Ile Cys Asn Ser Gly
20 25 30

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

Lys Ala Thr Asn Val Ala His Trp Thr Thr Pro Ser Leu Lys Cys Ile
50 55 60

Arg Asp Pro Ala Leu Val His Gln Arg Pro Ala Pro Pro Ser Thr Val
65 70 75 80

Thr Thr Ala Gly Val Thr Pro Gln Pro Glu Ser Leu Ser Pro Ser Gly
85 90 95

Lys Glu Pro Ala Ala Ser Ser Pro Ser Ser Asn Asn Thr Ala Ala Thr
100 105 110

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

115

120

125

Ser Thr Gly Thr Thr Glu Ile Ser Ser His Glu Ser Ser His Gly Thr
 130 135 140

Pro Ser Gln Thr Thr Ala Lys Asn Trp Glu Leu Thr Ala Ser Ala Ser
 145 150 155 160

His Gln Pro Pro Gly Val Tyr Pro Gln Gly
 165 170

<210> 185

<211> 114

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 185

Asn Trp Val Asn Val Ile Ser Asp Leu Lys Lys Ile Glu Asp Leu Ile
 1 5 10 15

Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His
 20 25 30

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

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
 50 55 60

Asn Leu Ile Ile Leu Ala Asn Asp Ser Leu Ser Ser Asn Gly Asn Val
 65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
 85 90 95

Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn
 100 105 110

Thr Ser

<210> 186

<211> 297

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 186

Ile Thr Cys Pro Pro Pro Met Ser Val Glu His Ala Asp Ile Trp Val
1 5 10 15

Lys Ser Tyr Ser Leu Tyr Ser Arg Glu Arg Tyr Ile Cys Asn Ser Gly
20 25 30

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

Lys Ala Thr Asn Val Ala His Trp Thr Thr Pro Ser Leu Lys Cys Ile
50 55 60

Arg Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro
65 70 75 80

Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
85 90 95

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
100 105 110

Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
115 120 125

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
130 135 140

Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
145 150 155 160

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
165 170 175

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

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu
195 200 205

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

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
225 230 235 240

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

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
260 265 270

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
275 280 285

Lys Ser Leu Ser Leu Ser Pro Gly Lys
290 295

<210> 187
<211> 114
<212> PRT
<213> Homo sapiens

<220>
<221> VARIANT
<222> (93)..(93)
<223> /replace="Lys"

<220>
<221> MISC_FEATURE
<222> (1)..(114)
<223> /note="Variant residues given in the sequence have no
preference with respect to those in the annotations
for variant positions"

<400> 187
Asn Trp Val Asn Val Ile Ser Asp Leu Lys Lys Ile Glu Asp Leu Ile
1 5 10 15

Gln Ser Met His Ile Asp Ala Thr Leu Tyr Thr Glu Ser Asp Val His
20 25 30

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

Val Ile Ser Leu Glu Ser Gly Asp Ala Ser Ile His Asp Thr Val Glu
50 55 60

Asn Leu Ile Ile Leu Ala Asn Asn Ser Leu Ser Ser Asn Gly Asn Val
65 70 75 80

Thr Glu Ser Gly Cys Lys Glu Cys Glu Glu Leu Glu Glu Lys Asn Ile
85 90 95

Lys Glu Phe Leu Gln Ser Phe Val His Ile Val Gln Met Phe Ile Asn
100 105 110

Thr Ser

<210> 188

<211> 77

<212> PRT

<213> Homo sapiens

<400> 188

Ile Thr Cys Pro Pro Met Ser Val Glu His Ala Asp Ile Trp Val
1 5 10 15

Lys Ser Tyr Ser Leu Tyr Ser Arg Glu Arg Tyr Ile Cys Asn Ser Gly
20 25 30

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

Lys Ala Thr Asn Val Ala His Trp Thr Thr Pro Ser Leu Lys Cys Ile
50 55 60

Arg Asp Pro Ala Leu Val His Gln Arg Pro Ala Pro Pro
65 70 75

<210> 189

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<220>

<221> VARIANT

<222> (4)..(4)

<223> /replace="Ser" or "Arg" or "Lys"

<220>

<221> VARIANT

<222> (5)..(5)

<223> /replace="Tyr" or "Ser"

<220>

<221> VARIANT

<222> (6)..(6)

<223> /replace="Asn"

<220>

<221> MISC_FEATURE

<222> (1)..(9)

<223> /note="Variant residues given in the sequence have no
preference with respect to those in the annotations
for variant positions"

<400> 189

Phe Thr Phe His Arg Tyr Ala Met Ser
1 5

<210> 190

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 190

Phe Thr Phe His Arg Tyr Ala Met Ser
1 5

<210> 191

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 191

Phe Thr Phe Ser Tyr Asn Ala Met Ser
1 5

<210> 192

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 192

Phe Thr Phe Ser Arg Tyr Ala Met Ser
1 5

<210> 193

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 193

Phe Thr Phe Arg Ser Tyr Ala Met Ser
1 5

<210> 194
 <211> 9
 <212> PRT
 <213> Artificial Sequence

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

 <400> 194
 Phe Thr Phe Lys Ser Tyr Ala Met Ser
 1 5

 <210> 195
 <211> 9
 <212> PRT
 <213> Artificial Sequence

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

 <400> 195
 Phe Thr Phe Ser Ser Tyr Ala Met Ser
 1 5

 <210> 196
 <211> 9
 <212> PRT
 <213> Artificial Sequence

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

 <220>
 <221> VARIANT
 <222> (4)..(4)
 <223> /replace="Ser"

 <220>
 <221> VARIANT
 <222> (5)..(5)
 <223> /replace="Gly" or "Ser"

 <220>
 <221> VARIANT
 <222> (6)..(6)
 <223> /replace="Arg"

 <220>
 <221> MISC_FEATURE
 <222> (1)..(9)
 <223> /note="Variant residues given in the sequence have no preference with respect to those in the annotations for variant positions"

 <400> 196

Gly Ser Ile Glu Arg Tyr Tyr Trp Ser
1 5

<210> 197

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 197

Gly Ser Ile Glu Arg Tyr Tyr Trp Ser
1 5

<210> 198

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 198

Gly Ser Ile Glu Gly Arg Tyr Trp Ser
1 5

<210> 199

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 199

Gly Ser Ile Ser Gly Arg Tyr Trp Ser
1 5

<210> 200

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 200

Gly Ser Ile Ser Ser Tyr Tyr Trp Ser
1 5

<210> 201
<211> 17
<212> PRT
<213> Artificial Sequence

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

<400> 201
Ala Ile Ser Gly Thr Gly Ile Ser Thr Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 202
<211> 6
<212> PRT
<213> Artificial Sequence

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

<400> 202
Ser Gly Thr Gly Ile Ser
1 5

<210> 203
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 203
Ile Ser Gly Thr Gly Ile Ser Thr
1 5

<210> 204
<211> 124
<212> PRT
<213> Artificial Sequence

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

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

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

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

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

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

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

Ala Arg Gly Gly Leu Tyr Gly Ser Gly Ser Tyr Leu Ser Asp Phe Asp
100 105 110

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

<210> 205

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 205

Arg Ala Ser Gln Ser Ile Ser Ser Trp Leu Ala
1 5 10

<210> 206

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 206

Asp Ala Ser Ser Leu Glu Ser
1 5

<210> 207

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

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

<400> 207
Gln Gln Ser Asn Thr Phe Tyr Thr
1 5

<210> 208
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 208
Ser Gln Ser Ile Ser Ser Trp
1 5

<210> 209
<211> 3
<212> PRT
<213> Artificial Sequence

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

<400> 209
Asp Ala Ser
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<210> 210

<400> 210
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<210> 211

<400> 211
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<210> 212

<400> 212
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<210> 213

<400> 213
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<210> 221

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<210> 226

<400> 226
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<210> 227

<400> 227
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<210> 228

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 228

Ser Asn Thr Phe Tyr
1 5

<210> 229

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 229

Gln Ser Ile Ser Ser Trp
1 5

<210> 230

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 230

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
20 25 30

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

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

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

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

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

<210> 231
<211> 17
<212> PRT
<213> Artificial Sequence

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

<400> 231
Ala Ile Ser Gly Thr Gly Leu Ser Thr Tyr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 232
<211> 6
<212> PRT
<213> Artificial Sequence

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

<400> 232
Ser Gly Thr Gly Leu Ser
1 5

<210> 233
<211> 8
<212> PRT
<213> Artificial Sequence

<220>


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

<400> 233
Ile Ser Gly Thr Gly Leu Ser Thr
1           5

<210> 234
<211> 124
<212> PRT
<213> Artificial Sequence

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

<400> 234
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1           5           10           15

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

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

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

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

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

Ala Arg Gly Gly Leu Tyr Gly Ser Gly Ser Tyr Leu Ser Asp Phe Asp
           100           105           110

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

<210> 235
<211> 10
<212> PRT
<213> Artificial Sequence

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

<400> 235
Gly Tyr Thr Phe Thr Tyr Tyr Trp Met His

```

1 5 10

<210> 236
<211> 17
<212> PRT
<213> Artificial Sequence

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

<400> 236
Ser Ile Asn Pro Asn Ser Gly Ser Thr Asn Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 237
<211> 18
<212> PRT
<213> Artificial Sequence

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

<400> 237
Asp Thr Gly Gly Asp Lys Ser Pro Leu Thr Tyr Tyr Tyr Tyr Gly Met
1 5 10 15

Asp Val

<210> 238
<211> 5
<212> PRT
<213> Artificial Sequence

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

<400> 238
Tyr Tyr Trp Met His
1 5

<210> 239
<211> 7
<212> PRT
<213> Artificial Sequence

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

peptide"

<400> 239

Gly Tyr Thr Phe Thr Tyr Tyr
1 5

<210> 240

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 240

Asn Pro Asn Ser Gly Ser
1 5

<210> 241

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 241

Gly Tyr Thr Phe Thr Tyr Tyr Trp
1 5

<210> 242

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 242

Ile Asn Pro Asn Ser Gly Ser Thr
1 5

<210> 243

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 243

Ala Arg Asp Thr Gly Gly Asp Lys Ser Pro Leu Thr Tyr Tyr Tyr Tyr

1 5 10 15

Gly Met Asp Val
20

<210> 244
<211> 9
<212> PRT
<213> Artificial Sequence

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

<400> 244
Tyr Thr Phe Thr Tyr Tyr Trp Met His
1 5

<210> 245
<211> 127
<212> PRT
<213> Artificial Sequence

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

<400> 245
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

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

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

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

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

Ala Arg Asp Thr Gly Gly Asp Lys Ser Pro Leu Thr Tyr Tyr Tyr Tyr
100 105 110

Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 246
 <211> 11
 <212> PRT
 <213> Artificial Sequence

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

 <400> 246
 Arg Ala Ser Gln Gly Ile Ser Arg Trp Leu Ala
 1 5 10

 <210> 247
 <211> 10
 <212> PRT
 <213> Artificial Sequence

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

 <400> 247
 Gln Gln Ala Ile Ala Leu Pro Pro Phe Thr
 1 5 10

 <210> 248
 <211> 7
 <212> PRT
 <213> Artificial Sequence

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

 <400> 248
 Ser Gln Gly Ile Ser Arg Trp
 1 5

 <210> 249
 <211> 7
 <212> PRT
 <213> Artificial Sequence

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

 <400> 249
 Ala Ile Ala Leu Pro Pro Phe
 1 5

 <210> 250
 <211> 6
 <212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 250

Gln Gly Ile Ser Arg Trp
1 5

<210> 251

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 251

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Arg Trp
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 Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

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

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

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

<210> 252

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 252

Gly Phe Thr Phe Ser Ser Tyr Trp Met Ser
1 5 10

<210> 253
<211> 17
<212> PRT
<213> Artificial Sequence

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

<400> 253
Asn Ile Lys Gln Asp Gly Ser Glu Lys Tyr Tyr Val Asp Ser Val Lys
1 5 10 15

Gly

<210> 254
<211> 19
<212> PRT
<213> Artificial Sequence

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

<400> 254
Ala Pro Glu Tyr Tyr Ser Thr Thr Thr Arg Leu Tyr Tyr Tyr Tyr Gly
1 5 10 15

Met Asp Val

<210> 255
<211> 5
<212> PRT
<213> Artificial Sequence

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

<400> 255
Ser Tyr Trp Met Ser
1 5

<210> 256
<211> 6
<212> PRT
<213> Artificial Sequence

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

<400> 256
Lys Gln Asp Gly Ser Glu
1 5

<210> 257
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 257
Gly Phe Thr Phe Ser Ser Tyr Trp
1 5

<210> 258
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 258
Ile Lys Gln Asp Gly Ser Glu Lys
1 5

<210> 259
<211> 21
<212> PRT
<213> Artificial Sequence

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

<400> 259
Ala Arg Ala Pro Glu Tyr Tyr Ser Thr Thr Thr Arg Leu Tyr Tyr Tyr
1 5 10 15

Tyr Gly Met Asp Val
20

<210> 260
<211> 9
<212> PRT
<213> Artificial Sequence

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

<400> 260

Phe Thr Phe Ser Ser Tyr Trp Met Ser
1 5

<210> 261

<211> 128

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 261

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

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

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

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

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

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

Ala Arg Ala Pro Glu Tyr Tyr Ser Thr Thr Thr Arg Leu Tyr Tyr Tyr
100 105 110

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 262

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 262

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

Ala

<210> 263

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 263

Trp Ala Ser Thr Arg Glu Ser

1 5

<210> 264

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 264

Gln Gln Tyr Asp Ala His Pro Phe Thr

1 5

<210> 265

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 265

Ser Gln Ser Val Leu Tyr Ser Ser Asn Asn Lys Asn Tyr

1 5 10

<210> 266

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 266

Trp Ala Ser

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<210> 267
<211> 6
<212> PRT
<213> Artificial Sequence

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

<400> 267
Tyr Asp Ala His Pro Phe
1 5

<210> 268
<211> 12
<212> PRT
<213> Artificial Sequence

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

<400> 268
Gln Ser Val Leu Tyr Ser Ser Asn Asn Lys Asn Tyr
1 5 10

<210> 269
<211> 113
<212> PRT
<213> Artificial Sequence

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

<400> 269
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

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

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

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

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

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

Tyr	Asp	Ala	His	Pro	Phe	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile
			100					105					110		

Lys

<210> 270

<400> 270
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<210> 271

<400> 271
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<210> 272

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<400> 286
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<210> 287

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 287

Gly Gly Thr Phe Ser Ser Tyr Ala Ile Ser
1 5 10

<210> 288

<211> 17

<212> PRT
<213> Artificial Sequence

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

<400> 288
Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 289
<211> 16
<212> PRT
<213> Artificial Sequence

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

<400> 289
His Tyr Tyr Asp Tyr Trp Ser Gly Tyr Tyr Thr Asn Thr Gly Ile Tyr
1 5 10 15

<210> 290
<211> 5
<212> PRT
<213> Artificial Sequence

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

<400> 290
Ser Tyr Ala Ile Ser
1 5

<210> 291
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 291
Gly Gly Thr Phe Ser Ser Tyr
1 5

<210> 292
<211> 6

<212> PRT
<213> Artificial Sequence

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

<400> 292
Ile Pro Ile Phe Gly Thr
1 5

<210> 293
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 293
Gly Gly Thr Phe Ser Ser Tyr Ala
1 5

<210> 294
<211> 8
<212> PRT
<213> Artificial Sequence

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

<400> 294
Ile Ile Pro Ile Phe Gly Thr Ala
1 5

<210> 295
<211> 18
<212> PRT
<213> Artificial Sequence

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

<400> 295
Ala Arg His Tyr Tyr Asp Tyr Trp Ser Gly Tyr Tyr Thr Asn Thr Gly
1 5 10 15

Ile Tyr

<210> 296
<211> 9

<212> PRT
<213> Artificial Sequence

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

<400> 296
Gly Thr Phe Ser Ser Tyr Ala Ile Ser
1 5

<210> 297
<211> 125
<212> PRT
<213> Artificial Sequence

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

<400> 297
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
1 5 10 15

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

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

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

Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr 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 His Tyr Tyr Asp Tyr Trp Ser Gly Tyr Tyr Thr Asn Thr Gly
100 105 110

Ile Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 298
<211> 11
<212> PRT
<213> Artificial Sequence

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

peptide"

<400> 298

Arg Ala Ser Gln Ser Val Ser Ser Asn Leu Ala
1 5 10

<210> 299

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 299

Gln Gln Ser Gly Ala Leu Pro Ile Thr
1 5

<210> 300

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 300

Ser Gln Ser Val Ser Ser Asn
1 5

<210> 301

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 301

Ser Gly Ala Leu Pro Ile
1 5

<210> 302

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 302

Gln Ser Val Ser Ser Asn

<210> 303
<211> 107
<212> PRT
<213> Artificial Sequence

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

<400> 303
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15

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

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

Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80

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

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

<210> 304
<211> 10
<212> PRT
<213> Artificial Sequence

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

<400> 304
Gly Gly Ser Phe Leu Arg Tyr Tyr Trp Ser
1 5 10

<210> 305
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<221> source

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

<400> 305
 Glu Ile Asp His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys Ser
 1 5 10 15

<210> 306
 <211> 15
 <212> PRT
 <213> Artificial Sequence

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

<400> 306
 Gly Gln Asn Tyr Tyr Gly Ser Gly Ser Ala Asp Gly Phe Asp Pro
 1 5 10 15

<210> 307
 <211> 7
 <212> PRT
 <213> Artificial Sequence

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

<400> 307
 Gly Gly Ser Phe Leu Arg Tyr
 1 5

<210> 308
 <211> 5
 <212> PRT
 <213> Artificial Sequence

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

<400> 308
 Asp His Ser Gly Ser
 1 5

<210> 309
 <211> 8
 <212> PRT
 <213> Artificial Sequence

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

<400> 309

Gly Gly Ser Phe Leu Arg Tyr Tyr
1 5

<210> 310

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 310

Ile Asp His Ser Gly Ser Thr
1 5

<210> 311

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 311

Ala Arg Gly Gln Asn Tyr Tyr Gly Ser Gly Ser Ala Asp Gly Phe Asp
1 5 10 15

Pro

<210> 312

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 312

Gly Ser Phe Leu Arg Tyr Tyr Trp Ser
1 5

<210> 313

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 313

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

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

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Glu Ile Asp His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Gly Gln Asn Tyr Tyr Gly Ser Gly Ser Ala Asp Gly Phe Asp Pro
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 314
<211> 9
<212> PRT
<213> Artificial Sequence

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

<400> 314
Gln Gln Ala Asn Ser Phe Pro Pro Thr
1 5

<210> 315
<211> 6
<212> PRT
<213> Artificial Sequence

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

<400> 315
Ala Asn Ser Phe Pro Pro
1 5

<210> 316
<211> 107

<212> PRT
 <213> Artificial Sequence

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

 <400> 316
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1 5 10 15

 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Trp
 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 Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

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

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

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

<210> 317
 <211> 10
 <212> PRT
 <213> Artificial Sequence

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

 <400> 317
 Gly Gly Ser Phe Ser Gly Tyr Tyr Trp Ser
 1 5 10

<210> 318
 <211> 16
 <212> PRT
 <213> Artificial Sequence

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

<400> 318
 Glu Ile Asp Ala Ser Gly Ser Thr Arg Tyr Asn Pro Ser Leu Lys Ser

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<210> 319
<211> 9
<212> PRT
<213> Artificial Sequence

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

<400> 319
Pro Leu Tyr Asp Ala Tyr Leu Asp Val
1      5
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<210> 320
<211> 5
<212> PRT
<213> Artificial Sequence

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

<400> 320
Gly Tyr Tyr Trp Ser
1      5
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<210> 321
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 321
Gly Gly Ser Phe Ser Gly Tyr
1      5
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<210> 322
<211> 5
<212> PRT
<213> Artificial Sequence

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

<400> 322
Asp Ala Ser Gly Ser
1      5
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<210> 323
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<211> 8
 <212> PRT
 <213> Artificial Sequence

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

 <400> 323
 Gly Gly Ser Phe Ser Gly Tyr Tyr
 1 5

 <210> 324
 <211> 7
 <212> PRT
 <213> Artificial Sequence

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

 <400> 324
 Ile Asp Ala Ser Gly Ser Thr
 1 5

 <210> 325
 <211> 11
 <212> PRT
 <213> Artificial Sequence

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

 <400> 325
 Ala Arg Pro Leu Tyr Asp Ala Tyr Leu Asp Val
 1 5 10

 <210> 326
 <211> 9
 <212> PRT
 <213> Artificial Sequence

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

 <400> 326
 Gly Ser Phe Ser Gly Tyr Tyr Trp Ser
 1 5

 <210> 327
 <211> 117
 <212> PRT
 <213> Artificial Sequence

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

 <400> 327
 Gln Val Gln Leu Gln Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1 5 10 15

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

 Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45

 Gly Glu Ile Asp Ala Ser Gly Ser Thr Arg Tyr Asn Pro Ser Leu Lys
 50 55 60

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

 Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

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

 Val Thr Val Ser Ser
 115

<210> 328
 <211> 9
 <212> PRT
 <213> Artificial Sequence

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

 <400> 328
 Gln Gln Ala Pro Ile Tyr Pro Ile Thr
 1 5

<210> 329
 <211> 6
 <212> PRT
 <213> Artificial Sequence

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

 <400> 329

Ala Pro Ile Tyr Pro Ile
1 5

<210> 330
<211> 107
<212> PRT
<213> Artificial Sequence

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

<400> 330
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Trp
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 Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

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

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

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

<210> 331
<211> 225
<212> PRT
<213> Artificial Sequence

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

<400> 331
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Glu Arg Tyr
20 25 30

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

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

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg Glu Ser Gln Glu Ser Pro Tyr Asn Asn Trp Phe Asp Pro Trp Gly
100 105 110

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

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

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

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

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

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

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

Pro
225

<210> 332

<211> 553

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 332

Met Cys Pro Arg Ala Ala Arg Ala Pro Ala Thr Leu Leu Leu Ala Leu
1 5 10 15

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

Arg	Lys	Val	Pro	Val	Val	Gln	Ala	Tyr	Ala	Phe	Gly	Lys	Tyr	Leu	Gly	275	280	285	
Tyr	Leu	Lys	Ile	Glu	Phe	Asp	Glu	Arg	Gly	Asn	Val	Ile	Ser	Ser	His	290	295	300	
Gly	Asn	Pro	Ile	Leu	Leu	Asn	Ser	Ser	Ile	Pro	Glu	Asp	Pro	Ser	Ile	305	310	315	320
Lys	Ala	Asp	Ile	Asn	Lys	Trp	Arg	Ile	Lys	Leu	Asp	Asn	Tyr	Ser	Thr	325	330	335	
Gln	Glu	Leu	Gly	Lys	Thr	Ile	Val	Tyr	Leu	Asp	Gly	Ser	Ser	Gln	Ser	340	345	350	
Cys	Arg	Phe	Arg	Glu	Cys	Asn	Met	Gly	Asn	Leu	Ile	Cys	Asp	Ala	Met	355	360	365	
Ile	Asn	Asn	Asn	Leu	Arg	His	Ala	Asp	Glu	Thr	Phe	Trp	Asn	His	Val	370	375	380	
Ser	Met	Cys	Ile	Leu	Asn	Gly	Gly	Gly	Ile	Arg	Ser	Pro	Ile	Asp	Glu	385	390	395	400
Arg	Asn	Asn	Gly	Thr	Ile	Thr	Trp	Glu	Asn	Leu	Ala	Ala	Val	Leu	Pro	405	410	415	
Phe	Gly	Gly	Thr	Phe	Asp	Leu	Val	Gln	Leu	Lys	Gly	Ser	Thr	Leu	Lys	420	425	430	
Lys	Ala	Phe	Glu	His	Ser	Val	His	Arg	Tyr	Gly	Gln	Ser	Thr	Gly	Glu	435	440	445	
Phe	Leu	Gln	Val	Gly	Gly	Ile	His	Val	Val	Tyr	Asp	Leu	Ser	Arg	Lys	450	455	460	
Pro	Gly	Asp	Arg	Val	Val	Lys	Leu	Asp	Val	Leu	Cys	Thr	Lys	Cys	Arg	465	470	475	480
Val	Pro	Ser	Tyr	Asp	Pro	Leu	Lys	Met	Asp	Glu	Val	Tyr	Lys	Val	Ile	485	490	495	
Leu	Pro	Asn	Phe	Leu	Ala	Asn	Gly	Gly	Asp	Gly	Phe	Gln	Met	Ile	Lys	500	505	510	
Asp	Glu	Leu	Leu	Arg	His	Asp	Ser	Gly	Asp	Gln	Asp	Ile	Asn	Val	Val	515	520	525	

Ser Thr Tyr Ile Ser Lys Met Lys Val Ile Tyr Pro Ala Val Glu Gly
530 535 540

Arg Ile Lys His His His His His His
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<213> Artificial Sequence

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

<400> 501
Thr Tyr Trp Met His
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<210> 502
<211> 17
<212> PRT
<213> Artificial Sequence

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

<400> 502
Asn Ile Tyr Pro Gly Thr Gly Gly Ser Asn Phe Asp Glu Lys Phe Lys
1 5 10 15

Asn

<210> 503
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<212> PRT
<213> Artificial Sequence

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

<400> 503
Trp Thr Thr Gly Thr Gly Ala Tyr
1 5

<210> 504
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 504
Gly Tyr Thr Phe Thr Thr Tyr
1 5

<210> 505
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> source

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

<400> 505

Tyr Pro Gly Thr Gly Gly
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<210> 506

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 506

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

Ser Leu Arg Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Thr Tyr
20 25 30

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

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

Lys Asn Arg Val Thr Ile Thr Ala Asp Lys Ser Thr 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

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

Val Thr Val Ser Ser
115

<210> 507

<211> 351

<212> DNA

<213> Artificial Sequence

<220>

<221> source

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

<400> 507

gaggtgcagc tggtgcagtc aggcgccgaa gtgaagaagc ccggcgagtc actgagaatt

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agctgtaaag gttcaggcta caccttcact acctactgga tgcactgggt ccgccaggct	120
accgggtcaag gcctcgagtg gatgggtaat atctaccccg gcaccggcgg ctctaacttc	180
gacgagaagt ttaagaatag agtgactatc accgccgata agtctactag caccgcctat	240
atggaactgt ctagcctgag atcagaggac accgccgtct actactgcac taggtggact	300
accggcacag gcgcctactg ggggtcaaggc actaccgtga ccgtgtctag c	351

<210> 508

<211> 443

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 508

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

Ser	Leu	Arg	Ile	Ser	Cys	Lys	Gly	Ser	Gly	Tyr	Thr	Phe	Thr	Thr	Tyr
			20					25					30		

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

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

Lys	Asn	Arg	Val	Thr	Ile	Thr	Ala	Asp	Lys	Ser	Thr	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	

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

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

Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala	Leu	Gly	Cys
	130					135					140				

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

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

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

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

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

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

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

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

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

Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
 290 295 300

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

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

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

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
 370 375 380

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

Phe Phe Leu Tyr Ser Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu
 405 410 415

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
 420 425 430

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly
435 440

<210> 509

<211> 1329

<212> DNA

<213> Artificial Sequence

<220>

<221> source

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

<400> 509

gaggtgcagc tgggtgcagtc aggcgccgaa gtgaagaagc ccggcgagtc actgagaatt	60
agctgtaaaag gttcaggcta caccttcact acctactgga tgcactgggt ccgccaggct	120
accggtcaag gcctcgagtg gatgggtaat atctaccccg gcaccggcgg ctctaacttc	180
gacgagaagt ttaagaatag agtgactatc accgccgata agtctactag caccgcctat	240
atggaactgt ctagcctgag atcagaggac accgccgtct actactgcac taggtggact	300
accggcacag gcgcctactg ggggtcaaggc actaccgtga ccgtgtctag cgctagcact	360
aagggcccgt ccgtgttccc cctggcacct tgtagccgga gcactagcga atccaccgt	420
gccctcgggt gcctgggtcaa ggattacttc ccggagcccg tgaccgtgtc ctggaacagc	480
ggagccctga cctccggagt gcacaccttc cccgctgtgc tgcagagctc cgggctgtac	540
tcgctgtcgt cggtgggtcac ggtgccttca tctagcctgg gtaccaagac ctacacttgc	600
aacgtggacc acaagccttc caacactaag gtggacaagc gcgtcgaatc gaagtacggc	660
ccaccgtgcc cgccttgtcc cgcgccggag ttccctcggg gtccctcgggt ctttctgttc	720
ccaccgaagc ccaaggacac tttgatgatt tcccgcaccc ctgaagtgc atgcgtggtc	780
gtggacgtgt cacaggaaga tccggagggt cagttcaatt ggtacgtgga tggcgtcgag	840
gtgcacaacg ccaaaaccaa gccgagggag gagcagttca actccactta ccgcgtcgtg	900
tccgtgctga cggtgctgca tcaggactgg ctgaacggga aggagtacaa gtgcaaagtg	960
tccaacaagg gacttcctag ctcaatcgaa aagaccatct cgaaagccaa gggacagccc	1020
cggaacccc aagtgtatac cctgccaccg agccaggaag aaatgactaa gaaccaagtc	1080
tcattgactt gccttgtgaa gggcttctac ccatcgata tcgccgtgga atgggagtcc	1140
aacggccagc cggaaaacaa ctacaagacc acccctccgg tgcgtggactc agacggatcc	1200
ttcttcctct actcgcggct gaccgtggat aagagcagat ggcaggagg aaatgtgttc	1260
agctgttctg tgatgcatga agccctgcac aaccactaca ctcagaagtc cctgtccctc	1320
tccttgga	1329

<210> 510
<211> 17
<212> PRT
<213> Artificial Sequence

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

<400> 510
Lys Ser Ser Gln Ser Leu Leu Asp Ser Gly Asn Gln Lys Asn Phe Leu
1 5 10 15

Thr

<210> 511
<211> 7
<212> PRT
<213> Artificial Sequence

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

<400> 511
Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 512
<211> 9
<212> PRT
<213> Artificial Sequence

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

<400> 512
Gln Asn Asp Tyr Ser Tyr Pro Tyr Thr
1 5

<210> 513
<211> 13
<212> PRT
<213> Artificial Sequence

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

<400> 513
Ser Gln Ser Leu Leu Asp Ser Gly Asn Gln Lys Asn Phe
1 5 10

<210> 514
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<212> PRT
<213> Artificial Sequence

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

<400> 514
Trp Ala Ser
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<210> 515
<211> 6
<212> PRT
<213> Artificial Sequence

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

<400> 515
Asp Tyr Ser Tyr Pro Tyr
1 5

<210> 516
<211> 113
<212> PRT
<213> Artificial Sequence

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

<400> 516
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

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

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

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

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

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

Lys

<210> 517
 <211> 339
 <212> DNA
 <213> Artificial Sequence

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

<400> 517
 gagatcgtcc tgactcagtc acccgctacc ctgagcctga gccctggcga gcgggctaca 60
 ctgagctgta aatctagtca gtcactgctg gatagcggta atcagaagaa cttcctgacc 120
 tggatatcagc agaagcccgg taaagcccct aagctgctga tctactgggc ctctactaga 180
 gaatcaggcg tgccctctag gtttagcggg agcggtagtg gcaccgactt caccttcaact 240
 atctctagcc tgcagcccga ggatatcgct acctactact gtcagaacga ctatagctac 300
 ccctacacct tcggtcaagg cactaaggtc gagattaag 339

<210> 518
 <211> 220
 <212> PRT
 <213> Artificial Sequence

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

<400> 518
 Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15
 Glu Arg Ala Thr Leu Ser Cys Lys Ser Ser Gln Ser Leu Leu Asp Ser
 20 25 30
 Gly Asn Gln Lys Asn Phe Leu Thr Trp Tyr Gln Gln Lys Pro Gly Lys
 35 40 45
 Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60
 Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr
 65 70 75 80

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

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

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

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

<210> 519

<211> 660

<212> DNA

<213> Artificial Sequence

<220>

<221> source

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

<400> 519

gagatcgtcc tgactcagtc acccgctacc ctgagcctga gccctggcga gcgggctaca 60

ctgagctgta aatctagtca gtcactgctg gatagcggta atcagaagaa cttcctgacc 120

tggtatcagc agaagcccg taaagcccct aagctgctga tctactgggc ctctactaga 180

gaatcaggcg tgccctctag gtttagcggg agcggtagtg gcaccgactt caccttcaact 240

atctctagcc tgcagcccga ggatatcgct acctactact gtcagaacga ctatagctac 300

ccctacacct tcggtcaagg cactaaggct gagattaagc gtacggtggc cgctcccagc 360

gtgttcatct tccccccag cgacgagcag ctgaagagcg gcaccgccag cgtgggtgtgc 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> 520
<211> 113
<212> PRT
<213> Artificial Sequence

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

<400> 520
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

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

Gly Asn Gln Lys Asn Phe 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 Val
50 55 60

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

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

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

Lys

<210> 521
<211> 339
<212> DNA
<213> Artificial Sequence

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

<400> 521
gagatcgctc tgactcagtc acccgctacc ctgagcctga gccctggcga gcgggctaca 60
ctgagctgta aatctagtca gtcactgctg gatagcggta atcagaagaa cttcctgacc 120

tggtatcagc agaagcccgg tcaagcccct agactgctga tctactgggc ctctactaga	180
gaatcaggcg tgccctctag gtttagcggg agcggtagtg gcaccgactt caccttcaact	240
atctctagcc tggaagccga ggacgccgct acctactact gtcagaacga ctatagctac	300
ccctacacct tcgggtcaagg cactaagggtc gagattaag	339

<210> 522
 <211> 220
 <212> PRT
 <213> Artificial Sequence

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

<400> 522
 Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15

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

 Gly Asn Gln Lys Asn Phe 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 Val
 50 55 60

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

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

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

 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
 115 120 125

 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
 130 135 140

 Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
 145 150 155 160

 Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
 165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
195 200 205

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

<210> 523
<211> 660
<212> DNA
<213> Artificial Sequence

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

<400> 523
gagatcggtcc tgactcagtc acccgctacc ctgagcctga gccctggcga gcgggctaca 60
ctgagctgta aatctagtca gtcactgctg gatagcggta atcagaagaa cttcctgacc 120
tggtatcagc agaagcccg g tcaagcccct agactgctga tctactgggc ctctactaga 180
gaatcaggcg tgccctctag gtttagcggg agcggtagtg gcaccgactt caccttcact 240
atctctagcc tggaagccga ggacgcccgt acctactact gtcagaacga ctatagctac 300
ccctacacct tcgggtcaagg cactaaggtc gagattaagc gtacgggtggc cgctcccagc 360
gtgttcatct tccccccag cgacgagcag ctgaagagcg gcaccgccag cgtgggtgtgc 420
ctgctgaaca acttctaccc ccgggaggcc aaggtgcagt ggaagggtgga caacgccctg 480
cagagcggca acagccagga gagcgtcacc gagcaggaca gcaaggactc cacctacagc 540
ctgagcagca ccctgaccct gagcaaggcc gactacgaga agcataaggt gtacgcctgc 600
gaggtgaccc accagggcct gtccagcccc gtgaccaaga gcttcaacag gggcgagtgc 660

<210> 524
<211> 15
<212> DNA
<213> Artificial Sequence

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

<400> 524
acctactgga tgcac 15

<210> 525
<211> 51
<212> DNA
<213> Artificial Sequence

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

 <400> 525
 aatatctacc ccggcaccgg cggctctaac ttcgacgaga agtttaagaa t 51

<210> 526
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
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 <400> 526
 tggactaccg gcacaggcgc ctac 24

<210> 527
 <211> 21
 <212> DNA
 <213> Artificial Sequence

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

 <400> 527
 ggctacacct tcactaccta c 21

<210> 528
 <211> 18
 <212> DNA
 <213> Artificial Sequence

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

 <400> 528
 taccgccgga ccggcggc 18

<210> 529
 <211> 51
 <212> DNA
 <213> Artificial Sequence

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

 <400> 529
 aaatctagtc agtcactgct ggatagcggc aatcagaaga acttcctgac c 51

<210> 530
<211> 21
<212> DNA
<213> Artificial Sequence

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

<400> 530
tgggcctcta ctagagaatc a 21

<210> 531
<211> 27
<212> DNA
<213> Artificial Sequence

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

<400> 531
cagaacgact atagctaccc ctacacc 27

<210> 532
<211> 39
<212> DNA
<213> Artificial Sequence

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

<400> 532
agtcagtcac tgctggatag cggtaatcag aagaacttc 39

<210> 533
<211> 9
<212> DNA
<213> Artificial Sequence

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

<400> 533
tgggcctct 9

<210> 534
<211> 18
<212> DNA
<213> Artificial Sequence

<220>

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

<400> 534
gactatagct acccctac

18

<210> 535
<211> 440
<212> PRT
<213> Artificial Sequence

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

<400> 535
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Asp Cys Lys Ala Ser Gly Ile Thr Phe Ser Asn Ser
20 25 30

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

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

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

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

Ala Thr Asn Asp Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
100 105 110

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

Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp
130 135 140

Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
145 150 155 160

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

Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys

			180					185					190			
Thr	Tyr	Thr	Cys	Asn	Val	Asp	His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	
		195					200					205				
Lys	Arg	Val	Glu	Ser	Lys	Tyr	Gly	Pro	Pro	Cys	Pro	Pro	Cys	Pro	Ala	
	210					215					220					
Pro	Glu	Phe	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	
225				230						235					240	
Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	
				245					250					255		
Val	Asp	Val	Ser	Gln	Glu	Asp	Pro	Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	
			260					265					270			
Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	
		275					280					285				
Phe	Asn	Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	
	290					295					300					
Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Gly	
305					310					315					320	
Leu	Pro	Ser	Ser	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	
				325					330					335		
Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Gln	Glu	Glu	Met	Thr	
			340					345					350			
Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	
		355					360					365				
Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	
	370					375					380					
Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	
385					390					395					400	
Ser	Arg	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Glu	Gly	Asn	Val	Phe	
				405					410					415		
Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	
			420					425					430			
Ser	Leu	Ser	Leu	Ser	Leu	Gly	Lys									

<210> 536
 <211> 214
 <212> PRT
 <213> Artificial Sequence

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

<400> 536
 Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15

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

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

Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
 50 55 60

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

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

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

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

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

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

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

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

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

Phe Asn Arg Gly Glu Cys
210

<210> 537

<211> 447

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 537

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

<210> 538
<211> 218
<212> PRT
<213> Artificial Sequence

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

<400> 538
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Lys Gly Val Ser Thr Ser
20 25 30

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

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

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

Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln His Ser Arg
85 90 95

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

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
115 120 125

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
130 135 140

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

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
165 170 175

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

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

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 539

<211> 447

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 539

Gln Val Gln Leu Val Gln Ser Gly Ser Glu Leu Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Gly Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Gln Trp Met
35 40 45

Gly Trp Ile Asn Thr Asp Ser Gly Glu Ser Thr Tyr Ala Glu Glu Phe
50 55 60

Lys Gly Arg Phe Val Phe Ser Leu Asp Thr Ser Val Asn Thr Ala Tyr
65 70 75 80

Leu Gln Ile Thr Ser Leu Thr Ala Glu Asp Thr Gly Met Tyr Phe Cys
85 90 95

Val Arg Val Gly Tyr Asp Ala Leu Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
115 120 125

Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys
130 135 140

Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser
145 150 155 160

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
165 170 175

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
180 185 190

Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn

195

200

205

Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His
 210 215 220

Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val
 225 230 235 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
 245 250 255

Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
 260 265 270

Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
 275 280 285

Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
 290 295 300

Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
 305 310 315 320

Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile
 325 330 335

Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
 340 345 350

Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
 355 360 365

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
 370 375 380

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser
 385 390 395 400

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
 405 410 415

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
 420 425 430

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 435 440 445

<210> 540

<211> 213
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 540

Glu Ile Val Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Ser Ala Arg Ser Ser Val Ser Tyr Met
20 25 30

His Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Trp Ile Tyr
35 40 45

Arg Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Ser Tyr Cys Leu Thr Ile Asn Ser Leu Gln Pro Glu
65 70 75 80

Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Arg Ser Ser Phe Pro Leu Thr
85 90 95

Phe Gly Gly Gly Thr Lys Leu 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 Cys
210

<210> 541
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 541
Gly Tyr Thr Phe Thr Thr Tyr Trp Met His
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<210> 601

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 601

Ser Tyr Trp Met Tyr
1 5

<210> 602
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 602
Arg Ile Asp Pro Asn Ser Gly Ser Thr Lys Tyr Asn Glu Lys Phe Lys
1 5 10 15

Asn

<210> 603
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 603
Asp Tyr Arg Lys Gly Leu Tyr Ala Met Asp Tyr
1 5 10

<210> 604
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 604
Gly Tyr Thr Phe Thr Ser Tyr
1 5

<210> 605
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 605
Asp Pro Asn Ser Gly Ser
1 5

<210> 606
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 606
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Thr Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Trp Met Tyr Trp Val Arg Gln Ala Arg Gly Gln Arg Leu Glu Trp Ile
35 40 45

Gly Arg Ile Asp Pro Asn Ser Gly Ser Thr Lys Tyr Asn Glu Lys Phe
50 55 60

Lys Asn Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Tyr Arg Lys Gly Leu Tyr Ala Met Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 607
<211> 360
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 607
gaagtgcagc tgggtgcagtc aggcgccgaa gtgaagaaac ccggcgctac cgtgaagatt 60
agctgtaaag tctcaggcta caccttcact agctactgga tgtactgggt ccgacaggct 120
agagggcaaa gactggagtg gatcggtaga atcgacccta atagcggctc tactaagtat 180
aacgagaagt ttaagaatag gttcactatt agtagggata actctaagaa caccctgtac 240

ctgcagatga atagcctgag agccgaggac accgccgtct actactgcg tagagactat 300

agaaagggcc tgtacgctat ggactactgg ggtcaaggca ctaccgtgac cgtgtcttca 360

<210> 608

<211> 446

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 608

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Thr Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Trp Met Tyr Trp Val Arg Gln Ala Arg Gly Gln Arg Leu Glu Trp Ile
35 40 45

Gly Arg Ile Asp Pro Asn Ser Gly Ser Thr Lys Tyr Asn Glu Lys Phe
50 55 60

Lys Asn Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Tyr Arg Lys Gly Leu Tyr Ala Met Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser	Ser	Ser	Leu	Gly	Thr	Lys	Thr	Tyr	Thr	Cys	Asn	Val	Asp	His	Lys		
		195					200					205					
Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu	Ser	Lys	Tyr	Gly	Pro		
	210					215					220						
Pro	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Phe	Leu	Gly	Gly	Pro	Ser	Val		
225					230					235					240		
Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr		
				245					250					255			
Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	Gln	Glu	Asp	Pro	Glu		
			260					265					270				
Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys		
		275					280					285					
Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	Asn	Ser	Thr	Tyr	Arg	Val	Val	Ser		
	290					295					300						
Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys		
305					310					315					320		
Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Pro	Ser	Ser	Ile	Glu	Lys	Thr	Ile		
				325					330					335			
Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro		
			340					345						350			
Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu		
		355					360					365					
Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn		
	370					375					380						
Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser		
385					390					395					400		
Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Arg	Leu	Thr	Val	Asp	Lys	Ser	Arg		
				405					410					415			
Trp	Gln	Glu	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu		
			420					425					430				
His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Leu	Gly				
		435					440					445					

<210> 609
 <211> 11
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

 <400> 609
 Lys Ala Ser Gln Asp Val Gly Thr Ala Val Ala
 1 5 10

 <210> 610
 <211> 7
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

 <400> 610
 Trp Ala Ser Thr Arg His Thr
 1 5

 <210> 611
 <211> 9
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

 <400> 611
 Gln Gln Tyr Asn Ser Tyr Pro Leu Thr
 1 5

 <210> 612
 <211> 7
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

 <400> 612
 Ser Gln Asp Val Gly Thr Ala
 1 5

 <210> 613
 <211> 3
 <212> PRT
 <213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 613
Trp Ala Ser
1

<210> 614
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 614
Tyr Asn Ser Tyr Pro Leu
1 5

<210> 615
<211> 1338
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 615
gaagtgcagc tgggtgcagtc aggcgccgaa gtgaagaaac ccggcgctac cgtgaagatt 60
agctgtaaaag tctcaggcta caccttcact agctactgga tgtactgggt ccgacaggct 120
agagggcaaaa gactggagtg gatcggtaga atcgacccta atagcggctc tactaagtat 180
aacgagaagt ttaagaatag gttcactatt agtagggata actctaagaa caccctgtac 240
ctgcagatga atagcctgag agccgaggac accgccgtct actactgcg tagagactat 300
agaaagggcc tgtacgctat ggactactgg ggtcaaggca ctaccgtgac cgtgtcttca 360
gctagcacta agggcccgtc cgtgttcccc ctggcacctt gtagccggag cactagcgaa 420
tccaccgctg ccctcggctg cctgggtcaag gattacttcc cggagcccgt gaccgtgtcc 480
tggaacagcg gagccctgac ctccggagtg cacaccttcc ccgctgtgct gcagagctcc 540
gggctgtact cgctgtcgtc ggtggtcacg gtgccttcat ctagcctggg taccaagacc 600
tacacttgca acgtggacca caagccttcc aacactaagg tggacaagcg cgtcgaatcg 660
aagtacggcc caccgtgccc gccttgtccc gcgccggagt tcctcggcgg tccctcggtc 720
tttctgttcc caccgaagcc caaggacact ttgatgattt cccgcacccc tgaagtgaca 780
tgcgtggtcg tggacgtgtc acaggaagat ccggaggtgc agttcaattg gtacgtggat 840

ggcgtcgagg tgcacaacgc caaaaccaag ccgagggagg agcagttcaa ctccacttac 900
 cgcgctcgtgt ccgtgctgac ggtgctgcat caggactggc tgaacgggaa ggagtacaag 960
 tgcaaagtgt ccaacaaggg acttcctagc tcaatcgaaa agaccatctc gaaagccaag 1020
 ggacagcccc gggaacccca agtgtatacc ctgccaccga gccaggaaga aatgactaag 1080
 aaccaagtct cattgacttg ccttgtgaag ggcttctacc catcggatat cgccgtggaa 1140
 tgggagtcca acggccagcc ggaaaacaac tacaagacca cccctccggt gctggactca 1200
 gacggatcct tcttcctcta ctgcgaggctg accgtggata agagcagatg gcaggaggga 1260
 aatgtgttca gctgttctgt gatgcatgaa gccctgcaca accactacac tcagaagtcc 1320
 ctgtccctct ccctggga 1338

<210> 616

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 616

Ala	Ile	Gln	Leu	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly
1				5					10					15	

Asp	Arg	Val	Thr	Ile	Thr	Cys	Lys	Ala	Ser	Gln	Asp	Val	Gly	Thr	Ala
			20					25					30		

Val	Ala	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser	Pro	Gln	Leu	Leu	Ile
		35					40					45			

Tyr	Trp	Ala	Ser	Thr	Arg	His	Thr	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly
		50				55					60				

Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Phe	Thr	Ile	Ser	Ser	Leu	Glu	Ala
65					70					75				80	

Glu	Asp	Ala	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Tyr	Asn	Ser	Tyr	Pro	Leu
				85					90					95	

Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys
			100					105		

<210> 617

<211> 321

<212> DNA

<213> Artificial Sequence

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<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
        polynucleotide"

<400> 617
gctattcagc tgactcagtc acctagtagc ctgagcgcta gtgtgggcga tagagtgact      60
atcacctgta aagcctctca ggacgtgggc accgccgtgg cctggatatct gcagaagcct      120
gggtcaatcac ctcagctgct gatctactgg gcctctacta gacacaccgg cgtgccctct      180
aggttttagcg gtagcggtag tggcaccgac ttcaccttca ctatctcttc actggaagcc      240
gaggacgccg ctacctacta ctgtcagcag tataatagct accccctgac cttcgggtcaa      300
ggcactaagg tcgagattaa g                                              321

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<210> 618
<211> 214
<212> PRT
<213> Artificial Sequence

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<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
        polypeptide"

```

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<400> 618
Ala Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1           5           10           15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Gly Thr Ala
          20           25           30

Val Ala Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile
          35           40           45

Tyr Trp Ala Ser Thr Arg His Thr Gly Val Pro Ser Arg Phe Ser Gly
          50           55           60

Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Leu Glu Ala
65           70           75           80

Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Pro Leu
          85           90           95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
          100          105          110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
          115          120          125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
          130          135          140

```

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 619
<211> 642
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 619
gctattcagc tgactcagtc acctagtagc ctgagcgcta gtgtgggcga tagagtgact 60
atcacctgta aagcctctca ggacgtgggc accgccgtgg cctggatatct gcagaagcct 120
gggtcaatcac ctcagctgct gatctactgg gcctctacta gacacaccgg cgtgccctct 180
aggtttagcg gtagcggtag tggcaccgac ttcaccttca ctatctcttc actggaagcc 240
gaggacgccg ctacctacta ctgtcagcag tataatagct accccctgac cttcgggtcaa 300
ggcactaagg tcgagattaa gcgtacggtg gccgctccca gcgtgttcat cttccccccc 360
agcgacgagc agctgaagag cggcaccgcc agcgtggtgt gcctgctgaa caacttctac 420
ccccgggagg ccaaggtgca gtggaagggtg gacaacgccc tgcagagcgg caacagccag 480
gagagcgtca ccgagcagga cagcaaggac tccacctaca gcctgagcag caccctgacc 540
ctgagcaagg ccgactacga gaagcataag gtgtacgcct gcgaggtgac ccaccagggc 600
ctgtccagcc ccgtgaccaa gagcttcaac aggggagagt gc 642

<210> 620
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic

polypeptide"

<400> 620

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Thr Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Trp Met Tyr Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Arg Ile Asp Pro Asn Ser Gly Ser Thr Lys Tyr Asn Glu Lys Phe
50 55 60

Lys Asn Arg Val Thr Ile Thr Ala Asp Lys Ser Thr 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 Asp Tyr Arg Lys Gly Leu Tyr Ala Met Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 621

<211> 360

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 621

gaagtgcagc tgggtgcagtc aggcgccgaa gtgaagaaac ccggcgctac cgtgaagatt 60

agctgtaaaag tctcaggcta caccttcact agctactgga tgtactgggt ccgacaggct 120

accggtcaag gcctggagtg gatgggtaga atcgacccta atagcggctc tactaagtat 180

aacgagaagt ttaagaatag agtgactatc accgccgata agtctactag caccgcctat 240

atggaactgt ctagcctgag atcagaggac accgccgtct actactgcgc tagagactat 300

agaaagggcc tgtacgctat ggactactgg ggtcaaggca ctaccgtgac cgtgtcttca 360

<210> 622

<211> 446

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 622

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Thr Val Lys Ile Ser Cys Lys Val Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Trp Met Tyr Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Arg Ile Asp Pro Asn Ser Gly Ser Thr Lys Tyr Asn Glu Lys Phe
50 55 60

Lys Asn Arg Val Thr Ile Thr Ala Asp Lys Ser Thr 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 Asp Tyr Arg Lys Gly Leu Tyr Ala Met Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro
210 215 220

Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro Ser Val
225 230 235 240


```

<400> 623
gaagtgcagc tgggtgcagtc aggcgccgaa gtgaagaaac ccggcgcctac cgtgaagatt      60
agctgtaaaag tctcaggcta caccttcact agctactgga tgtactgggt ccgacaggct      120
accggtcaag gcctggagtg gatgggtaga atcgacccta atagcggctc tactaagtat      180
aacgagaagt ttaagaatag agtgactatc accgccgata agtctactag caccgcctat      240
atggaactgt ctagcctgag atcagaggac accgccgtct actactgcg tagagactat      300
agaaagggcc tgtacgctat ggactactgg ggtcaaggca ctaccgtgac cgtgtcttca      360
gctagcacta agggcccgtc cgtgttcccc ctggcacctt gtagccggag cactagcgaa      420
tccaccgctg ccctcggctg cctgggtcaag gattacttcc cggagcccgt gaccgtgtcc      480
tggaacagcg gagccctgac ctccggagtg cacaccttcc ccgctgtgct gcagagctcc      540
gggctgtact cgctgtcgtc ggtgggtcac gtgccttcat ctagcctggg taccaagacc      600
tacacttgca acgtggacca caagccttcc aacactaagg tggacaagcg cgtcgaatcg      660
aagtacggcc caccgtgccc gccttgtccc gcgccggagt tcctcggcgg tccctcggtc      720
tttctgttcc caccgaagcc caaggacact ttgatgattt cccgcacccc tgaagtgaca      780
tgcggtggtcg tggacgtgtc acaggaagat ccggaggtgc agttcaattg gtacgtggat      840
ggcgctcgagg tgcacaacgc caaaaccaag ccgagggagg agcagttcaa ctccacttac      900
cgcgctcgtgt ccgtgctgac ggtgctgcat caggactggc tgaacgggaa ggagtacaag      960
tgcaaagtgt ccaacaaggg acttcctagc tcaatcgaaa agaccatctc gaaagccaag     1020
ggacagcccc gggaacccca agtgatatcc ctgccaccga gccaggaaga aatgactaag     1080
aaccaagtct cattgacttg ccttgtgaag ggcttctacc catcggatat cgccgtggaa     1140
tgggagtcca acggccagcc ggaaaacaac tacaagacca cccctccggt gctggactca     1200
gacggatcct tcttcctcta ctcgcggctg accgtggata agagcagatg gcaggaggga     1260
aatgtgttca gctgttctgt gatgcatgaa gccctgcaca accactacac tcagaagtcc     1320
ctgtccctct ccctggga                                     1338

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<210> 624

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 624

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Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
1           5           10          15

```

Gln Pro Ala Ser Ile Ser Cys Lys Ala Ser Gln Asp Val Gly Thr Ala

20

25

30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35 40 45

Tyr Trp Ala Ser Thr Arg His Thr Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Pro Leu
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 625

<211> 321

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polynucleotide"

<400> 625

gacgtcgtga tgactcagtc acccctgagc ctgcccgtga ccctggggca gccgcctct 60

attagctgta aagcctctca ggacgtgggc accgccgtgg cctggatatca gcagaagcca 120

gggcaagccc ctagactgct gatctactgg gcctctacta gacacaccgg cgtgccctct 180

aggtttagcg gtagcggtag tggcaccgag ttcaccctga ctatctcttc actgcagccc 240

gacgacttcg ctacctacta ctgtcagcag tataatagct accccctgac cttcgggtcaa 300

ggcactaagg tcgagattaa g 321

<210> 626

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 626

Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
 1 5 10 15

Gln Pro Ala Ser Ile Ser Cys Lys Ala Ser Gln Asp Val Gly Thr Ala
 20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35 40 45
 Tyr Trp Ala Ser Thr Arg His Thr Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80
 Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Pro Leu
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
 100 105 110
 Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
 115 120 125
 Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 130 135 140
 Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
 145 150 155 160
 Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 165 170 175
 Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
 180 185 190
 Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
 195 200 205
 Phe Asn Arg Gly Glu Cys
 210

<210> 627

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 627

gacgtcgtga tgactcagtc acccctgagc ctgcccgtaga ccctgggggca gcccgctctt 60

attagctgta aagcctctca ggacgtgggc accgccgtgg cctgggtatca gcagaagcca 120

gggcaagccc ctagactgct gatctactgg gcctctacta gacacaccgg cgtgccctct	180
aggttttagcg gtagcggtag tggcaccgag ttcaccctga ctatctcttc actgcagccc	240
gacgacttcg ctacctacta ctgtcagcag tataatagct accccctgac cttcgggtcaa	300
ggcactaagg tcgagattaa gcgtacggtg gccgctccca gcgtgttcat cttccccccc	360
agcgacgagc agctgaagag cggcaccgcc agcgtggtgt gcctgctgaa caacttctac	420
ccccgggagg ccaaggtgca gtggaagggtg gacaacgccc tgcagagcgg caacagccag	480
gagagcgtca ccgagcagga cagcaaggac tccacctaca gcctgagcag caccctgacc	540
ctgagcaagg ccgactacga gaagcataag gtgtacgcct gcgagggtgac ccaccagggc	600
ctgtccagcc ccgtgaccaa gagcttcaac aggggcgagt gc	642

<210> 628
 <211> 15
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

<400> 628	
agctactgga tgtac	15

<210> 629
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

<400> 629	
agaatcgacc ctaatagcgg ctctactaag tataacgaga agtttaagaa t	51

<210> 630
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

<400> 630	
gactatagaa agggcctgta cgctatggac tac	33

<210> 631
 <211> 21

<212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

 <400> 631
 ggctacacct tcactagcta c 21

 <210> 632
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

 <400> 632
 gaccctaata gcggctct 18

 <210> 633
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

 <400> 633
 aaagcctctc aggacgtggg caccgccgtg gcc 33

 <210> 634
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

 <400> 634
 tgggcctcta ctagacacac c 21

 <210> 635
 <211> 27
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

<400> 635
cagcagtata atagctaccc cctgacc 27

<210> 636
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 636
tctcaggacg tgggcaccgc c 21

<210> 637
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 637
tgggcctct 9

<210> 638
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 638
tataatagct accccctg 18

<210> 639
<211> 448
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 639
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Ser
20 25 30

Trp Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Trp Ile Ser Pro Tyr Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Ala Asp Thr Ser Lys Asn Thr Ala Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Arg His Trp Pro Gly Gly Phe 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 Lys 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 Ala 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> 640
 <211> 214
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 640
 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 Asp Val Ser Thr Ala
 20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45

Tyr Ser Ala Ser Phe Leu Tyr 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 Tyr His Pro Ala
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 641

<211> 450

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 641

Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ile Met Met Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val

35

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Ser Ser Ile Tyr Pro Ser Gly Gly Ile Thr Phe Tyr Ala Asp Thr Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Ile Lys Leu Gly Thr Val Thr Thr Val Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp
210 215 220

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
225 230 235 240

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
245 250 255

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
260 265 270

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
275 280 285

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg

290

295

300

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 305 310 315 320

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 325 330 335

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 340 345 350

Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
 355 360 365

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 370 375 380

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
 385 390 395 400

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 405 410 415

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
 420 425 430

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 435 440 445

Gly Lys
 450

<210> 642

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 642

Gln Ser Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
 1 5 10 15

Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr
 20 25 30

Asn Tyr Val Ser Trp Tyr Gln Gln His Pro Gly Lys Ala Pro Lys Leu
 35 40 45

Met Ile Tyr Asp Val Ser Asn Arg Pro Ser Gly Val Ser Asn Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Thr Ser Ser
85 90 95

Ser Thr Arg Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu Gly Gln
100 105 110

Pro Lys Ala Asn Pro Thr Val Thr Leu Phe Pro Pro Ser Ser Glu Glu
115 120 125

Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr
130 135 140

Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Gly Ser Pro Val Lys
145 150 155 160

Ala Gly Val Glu Thr Thr Lys Pro Ser Lys Gln Ser Asn Asn Lys Tyr
165 170 175

Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His
180 185 190

Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys
195 200 205

Thr Val Ala Pro Thr Glu Cys Ser
210 215

<210> 643

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 643

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Arg Tyr
20 25 30

Trp	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Ala	Asn	Ile	Lys	Gln	Asp	Gly	Ser	Glu	Lys	Tyr	Tyr	Val	Asp	Ser	Val
	50					55					60				
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala	Lys	Asn	Ser	Leu	Tyr
65					70					75					80
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
				85					90					95	
Ala	Arg	Glu	Gly	Gly	Trp	Phe	Gly	Glu	Leu	Ala	Phe	Asp	Tyr	Trp	Gly
			100					105					110		
Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser
		115					120					125			
Val	Phe	Pro	Leu	Ala	Pro	Ser	Ser	Lys	Ser	Thr	Ser	Gly	Gly	Thr	Ala
	130					135					140				
Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val
145					150					155					160
Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala
				165					170					175	
Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val
			180					185					190		
Pro	Ser	Ser	Ser	Leu	Gly	Thr	Gln	Thr	Tyr	Ile	Cys	Asn	Val	Asn	His
		195					200					205			
Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu	Pro	Lys	Ser	Cys
	210					215					220				
Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Phe	Glu	Gly
225					230					235					240
Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met
				245					250					255	
Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	His
			260					265					270		
Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val
		275					280					285			

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
290 295 300

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
305 310 315 320

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Ser Ile
325 330 335

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
340 345 350

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
355 360 365

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 644

<211> 215

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 644

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Arg Val Ser Ser Ser
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45

Ile Tyr Asp Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Leu Pro
85 90 95

Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
100 105 110

Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
115 120 125

Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
130 135 140

Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
145 150 155 160

Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
165 170 175

Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val
180 185 190

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
195 200 205

Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 645

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 645

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
1 5 10 15

Ser Val Lys Val Ser Cys Lys Thr Ser Gly Asp Thr Phe Ser Thr Tyr

20

25

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Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Gly Ile Ile Pro Ile Phe Gly Lys Ala His Tyr Ala Gln Lys Phe
 50 55 60

Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Phe Cys
 85 90 95

Ala Arg Lys Phe His Phe Val Ser Gly Ser Pro Phe Gly Met Asp Val
 100 105 110

Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120

<210> 646

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 646

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
 20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35 40 45

Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
 65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Ser Asn Trp Pro Thr
 85 90 95

Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 647
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 647
Gly Tyr Thr Phe Thr Ser Tyr Trp Met Tyr
1 5 10

<210> 648

<400> 648
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<210> 700

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<210> 701
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 701
Asn Tyr Gly Met Asn
1 5

<210> 702
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 702
Trp Ile Asn Thr Asp Thr Gly Glu Pro Thr Tyr Ala Asp Asp Phe Lys
1 5 10 15

Gly

<210> 703
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 703
Asn Pro Pro Tyr Tyr Tyr Gly Thr Asn Asn Ala Glu Ala Met Asp Tyr
1 5 10 15

<210> 704
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 704
Gly Phe Thr Leu Thr Asn Tyr
1 5

<210> 705
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 705
Asn Thr Asp Thr Gly Glu
1 5

<210> 706
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 706
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr Leu Thr Asn Tyr
20 25 30

Gly Met Asn Trp Val Arg Gln Ala Arg Gly Gln Arg Leu Glu Trp Ile
35 40 45

Gly Trp Ile Asn Thr Asp Thr Gly Glu Pro Thr Tyr Ala Asp Asp Phe
50 55 60

Lys Gly Arg Phe Val Phe Ser Leu Asp Thr Ser Val Ser Thr Ala Tyr
65 70 75 80

Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asn Pro Pro Tyr Tyr Tyr Gly Thr Asn Asn Ala Glu Ala Met
100 105 110

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 707
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 707
caagtgcagc tgggtgcagtc gggagccgaa gtgaagaagc ctggagcctc ggtgaagggtg 60
tcgtgcaagg catccggatt caccctcacc aattacggga tgaactgggt cagacaggcc 120
cgggggtcaac ggctggagtg gatcggatgg attaacaccg acaccgggga gcctacctac 180
gcggacgatt tcaagggacg gttcgtgttc tccctcgaca cctccgtgtc caccgcctac 240
ctccaaatct cctcactgaa agcggaggac accgccgtgt actattgcgc gaggaacccg 300
ccctactact acggaaccaa caacgccgaa gccatggact actggggcca gggcaccact 360
gtgactgtgt ccagc 375

<210> 708
<211> 375
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 708
caggtgcagc tgggtgcagtc tggcgccgaa gtgaagaaac ctggcgcctc cgtgaagggtg 60
tcctgcaagg cctctggctt caccctgacc aactacggca tgaactgggt gcgacaggcc 120
agggggccagc ggctggaatg gatcggctgg atcaacaccg acaccggcga gcctacctac 180
gccgacgact tcaagggcag attcgtgttc tccctggaca cctccgtgtc caccgcctac 240
ctgcagatct ccagcctgaa ggccgaggat accgccgtgt actactgcgc ccggaacccc 300
ccttactact acggcaccaa caacgccgag gccatggact attggggcca gggcaccacc 360
gtgaccgtgt cctct 375

<210> 709
<211> 451
<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 709

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr Leu Thr Asn Tyr
20 25 30

Gly Met Asn Trp Val Arg Gln Ala Arg Gly Gln Arg Leu Glu Trp Ile
35 40 45

Gly Trp Ile Asn Thr Asp Thr Gly Glu Pro Thr Tyr Ala Asp Asp Phe
50 55 60

Lys Gly Arg Phe Val Phe Ser Leu Asp Thr Ser Val Ser Thr Ala Tyr
65 70 75 80

Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asn Pro Pro Tyr Tyr Tyr Gly Thr Asn Asn Ala Glu Ala Met
100 105 110

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr
115 120 125

Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser
130 135 140

Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
145 150 155 160

Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
165 170 175

Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
180 185 190

Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys
195 200 205

Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu
210 215 220

Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Leu
225 230 235 240

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
245 250 255

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
260 265 270

Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu
275 280 285

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr
290 295 300

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
305 310 315 320

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser
325 330 335

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
340 345 350

Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val
355 360 365

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
370 375 380

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
385 390 395 400

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu Thr
405 410 415

Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser Val
420 425 430

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
435 440 445

Ser Leu Gly
450

<210> 710

<211> 11

<212> PRT

<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 710
Ser Ser Ser Gln Asp Ile Ser Asn Tyr Leu Asn
1 5 10

<210> 711
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 711
Tyr Thr Ser Thr Leu His Leu
1 5

<210> 712
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 712
Gln Gln Tyr Tyr Asn Leu Pro Trp Thr
1 5

<210> 713
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 713
Ser Gln Asp Ile Ser Asn Tyr
1 5

<210> 714
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

peptide"

<400> 714

Tyr Thr Ser

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<210> 715

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 715

Tyr Tyr Asn Leu Pro Trp

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5

<210> 716

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 716

caagtgcagc	tggtgcagtc	gggagccgaa	gtgaagaagc	ctggagcctc	ggtgaagggtg	60
tcgtgcaagg	catccggatt	caccctcacc	aattacggga	tgaactgggt	cagacaggcc	120
cggggtcaac	ggctggagtg	gatcggatgg	attaacaccg	acaccgggga	gcctacctac	180
gcggacgatt	tcaagggacg	gttcgtgttc	tccctcgaca	cctccgtgtc	caccgcctac	240
ctccaaatct	cctcactgaa	agcggaggac	accgccgtgt	actattgcgc	gaggaacccg	300
ccctactact	acggaaccaa	caacgccgaa	gccatggact	actggggcca	gggcaccact	360
gtgactgtgt	ccagcgcgtc	cactaagggc	ccgtccgtgt	tccccctggc	accttgtagc	420
cggagcacta	gcgaatccac	cgtgcacctc	ggctgcctgg	tcaaggatta	cttcccggag	480
cccgtgaccg	tgtcctggaa	cagcggagcc	ctgacctccg	gagtgcacac	cttccccgct	540
gtgctgcaga	gctccgggct	gtactcgctg	tcgtcgggtg	tcacggtgcc	ttcatctagc	600
ctgggtacca	agacctacac	ttgcaacgtg	gaccacaagc	cttccaacac	taaggtggac	660
aagcgcgtcg	aatcgaagta	cggcccaccg	tgcccgcctt	gtcccgcgcc	ggagttcctc	720
ggcggtcctt	cggctctttct	gttcccaccg	aagcccaagg	acactttgat	gatttcccgc	780
acccctgaag	tgacatgcgt	ggtcgtggac	gtgtcacagg	aagatccgga	ggtgcagttc	840
aattggtagc	tggatggcgt	cgaggtgcac	aacgccaaaa	ccaagccgag	ggaggagcag	900
ttcaactcca	cttaccgcgt	cgtgtccgtg	ctgacgggtg	tgcacagga	ctggctgaac	960

gggaaggagt acaagtgcaa agtgtccaac aagggaacttc ctagctcaat cgaaaagacc	1020
atctcgaaaag ccaagggaca gccccgggaa ccccaagtgt ataccctgcc accgagccag	1080
gaagaaatga ctaagaacca agtctcattg acttgcttg tgaagggctt ctacccatcg	1140
gatatcgccg tggaatggga gtccaacggc cagccggaaa acaactacaa gaccaccct	1200
ccggtgctgg actcagacgg atccttcttc ctctactcgc ggctgaccgt ggataagagc	1260
agatggcagg agggaaatgt gttcagctgt tctgtgatgc atgaagccct gcacaaccac	1320
tacactcaga agtccctgtc cctctccctg gga	1353

<210> 717

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 717

caggtgcagc tgggtgcagtc tggcgccgaa gtgaagaaac ctggcgcctc cgtgaagggtg	60
tcctgcaagg cctctggctt caccctgacc aactacggca tgaactgggt gcgacaggcc	120
aggggccagc ggctggaatg gatcggctgg atcaacaccg acaccggcga gcctacctac	180
gccgacgact tcaagggcag attcgtgttc tccctggaca cctccgtgtc caccgcctac	240
ctgcagatct ccagcctgaa ggccgaggat accgccgtgt actactgcgc ccggaacccc	300
ccttactact acggcaccaa caacgccgag gccatggact attggggcca gggcaccacc	360
gtgaccgtgt cctctgcttc taccaagggg cccagcgtgt tccccctggc cccctgctcc	420
agaagcacca gcgagagcac agccgccctg ggctgcctgg tgaaggacta cttccccgag	480
cccgtgaccg tgtcctggaa cagcggagcc ctgaccagcg gcgtgcacac cttccccgcc	540
gtgctgcaga gcagcggcct gtacagcctg agcagcgtgg tgaccgtgcc cagcagcagc	600
ctgggaccca agacctacac ctgtaacgtg gaccacaagc ccagcaacac caaggtggac	660
aagaggggtg agagcaagta cgccccaccc tgccccccct gccagcccc cgagttcctg	720
ggcggaccca gcgtgttcct gttccccccc aagcccaagg acaccctgat gatcagcaga	780
acccccgagg tgacctgtgt ggtggtggac gtgtcccagg aggaccccga ggtccagttc	840
aactggtacg tggacggcgt ggaggtgcac aacgccaaaga ccaagcccag agaggagcag	900
tttaacagca cctaccgggt ggtgtccgtg ctgaccgtgc tgcaccagga ctggctgaac	960
ggcaaagagt acaagtgtaa ggtctccaac aagggcctgc caagcagcat cgaaaagacc	1020
atcagcaagg ccaagggcca gcctagagag cccaggtct acaccctgcc acccagccaa	1080
gaggagatga ccaagaacca ggtgtccctg acctgtcttg tgaagggctt ctaccaagc	1140

gacatcgccg tggagtggga gagcaacggc cagcccgaga acaactacaa gaccaccccc 1200
ccagtgtggt acagcgacgg cagcttcttc ctgtacagca ggctgaccgt ggacaagtcc 1260
agatggcagg agggcaacgt ctttagctgc tccgtgatgc acgaggccct gcacaaccac 1320
tacaccaga agagcctgag cctgtccctg ggc 1353

<210> 718
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 718
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 Ser Ser Ser Gln Asp Ile Ser Asn Tyr
20 25 30

Leu Asn Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile
35 40 45

Tyr Tyr Thr Ser Thr Leu His Leu Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Tyr Asn Leu Pro Trp
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 719
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 719
gatattcaga tgactcagtc acctagtagc ctgagcgcta gtgtgggcga tagagtgact 60
atcacctgta gctctagtca ggatatctct aactacctga actggtatct gcagaagccc 120

ggtcaatcac ctcagctgct gatctactac actagcaccc tgcacctggg cgtgccctct 180
 aggttttagcg gtagcggtag tggcaccgag ttaccctga ctatctctag cctgcagccc 240
 gacgacttcg ctacctacta ctgtcagcag tactataacc tgccctggac cttcggtcaa 300
 ggcactaagg tcgagattaa g 321

<210> 720
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 720
 gacatccaga tgaccagtc cccctccagc ctgtctgctt ccgtgggcga cagagtgacc 60
 atcacctgtt cctccagcca ggacatctcc aactacctga actggatatc gcagaagccc 120
 ggccagtccc ctcagctgct gatctactac acctccaccc tgcacctggg cgtgccctcc 180
 agattttccg gctctggctc tggcaccgag ttaccctga ccatcagctc cctgcagccc 240
 gacgacttcg ccacctacta ctgccagcag tactacaacc tgccctggac cttcggccag 300
 ggcaccaagg tggaaatcaa g 321

<210> 721
 <211> 214
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 721
 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 Ser Ser Ser Gln Asp Ile Ser Asn Tyr
 20 25 30
 Leu Asn Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile
 35 40 45
 Tyr Tyr Thr Ser Thr Leu His Leu Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Tyr Asn Leu Pro Trp
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 722

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 722

gatattcaga tgactcagtc acctagtagc ctgagcgcta gtgtgggcga tagagtgact 60

atcacctgta gctctagtca ggatatctct aactacctga actggtatct gcagaagccc 120

gggtcaatcac ctcagctgct gatctactac actagcacc tgcacctggg cgtgccctct 180

aggtttagcg gtagcggtag tggcaccgag ttcaccctga ctatctctag cctgcagccc 240

gacgacttcg ctacctacta ctgtcagcag tactataacc tgccctggac cttcgggtcaa 300

ggcactaagg tcgagattaa gcgtacggtg gccgctccca gcgtgttcat cttccccccc 360

agcgacgagc agctgaagag cggcaccgcc agcgtggtgt gcctgctgaa caacttctac 420

ccccgggagg ccaaggtgca gtggaagggtg gacaacgccc tgcagagcgg caacagccag 480

gagagcgtca ccgagcagga cagcaaggac tccacctaca gcctgagcag caccctgacc 540

ctgagcaagg ccgactacga gaagcataag gtgtacgcct gcgaggtgac ccaccagggc 600
 ctgtccagcc ccgtgaccaa gagcttcaac aggggcgagt gc 642

<210> 723
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 723
 gacatccaga tgaccagtc cccctccagc ctgtctgctt ccgtgggcga cagagtgacc 60
 atcacctgtt cctccagcca ggacatctcc aactacctga actggtatct gcagaagccc 120
 ggccagtccc ctcagctgct gatctactac acctccaccc tgcacctggg cgtgccctcc 180
 agatthttccg gctctggctc tggcaccgag ttaccctga ccatcagctc cctgcagccc 240
 gacgacttcg ccacctacta ctgccagcag tactacaacc tgccctggac cttcggccag 300
 ggcaccaagg tggaaatcaa gcgtacggtg gccgctccca gcgtgttcat cttcccccca 360
 agcgacgagc agctgaagag cggcaccgcc agcgtggtgt gtctgctgaa caacttctac 420
 cccagggagg ccaaggtgca gtggaagggtg gacaacgcc tgcagagcgg caacagccag 480
 gagagcgtca ccgagcagga cagcaaggac tccacctaca gcctgagcag caccctgacc 540
 ctgagcaagg ccgactacga gaagcacaag gtgtacgcct gtgaggtgac ccaccagggc 600
 ctgtccagcc ccgtgaccaa gagcttcaac aggggcgagt gc 642

<210> 724
 <211> 125
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 724
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr Leu Thr Asn Tyr
 20 25 30
 Gly Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Trp Ile Asn Thr Asp Thr Gly Glu Pro Thr Tyr Ala Asp Asp Phe

Lys Gly Arg Phe Val Phe Ser Leu Asp Thr Ser Val Ser Thr Ala Tyr
65 70 75 80

Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Asn Pro Pro Tyr Tyr Tyr Gly Thr Asn Asn Ala Glu Ala Met
100 105 110

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 725

<211> 375

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 725

caggtgcagc	tggtgcagtc	aggcgccgaa	gtgaagaaac	ccggcgctag	tgtgaaagtc	60
agctgtaaag	ctagtggctt	caccctgact	aactacggga	tgaactgggt	ccgccaggcc	120
ccaggtcaag	gcctcgagt	gatgggctg	attaacaccg	acaccggcga	gcctacctac	180
gccgacgact	ttaagggcag	attcgtgttt	agcctggaca	ctagtgtgtc	taccgcctac	240
ctgcagatct	ctagcctgaa	ggccgaggac	accgccgtct	actactgcgc	tagaaacccc	300
ccctactact	acggcactaa	caacgccgag	gctatggact	actgggggtca	aggcactacc	360
gtgaccgtgt	ctagc					375

<210> 726

<211> 375

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 726

caggtgcagc	tggtgcagtc	tggtgcagtc	gtgaagaaac	ctggcgctc	cgtgaagggt	60
tcctgcaagg	cctctggctt	caccctgacc	aactacggca	tgaactgggt	gcgacaggcc	120
cctggacagg	gcctggaatg	gatgggctg	atcaacaccg	acaccggcga	gcctacctac	180
gccgacgact	tcaagggcag	attcgtgttc	tccttggaac	cctccgtgtc	caccgcctac	240

ctgcagatct ccagcctgaa ggccgaggat accgccgtgt actactgcgc ccggaacccc 300
 ccttactact acggcaccaa caacgccgag gccatggact attggggcca gggcaccacc 360
 gtgaccgtgt cctct 375

<210> 727
 <211> 451
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 727
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr Leu Thr Asn Tyr
 20 25 30

Gly Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Ile Asn Thr Asp Thr Gly Glu Pro Thr Tyr Ala Asp Asp Phe
 50 55 60

Lys Gly Arg Phe Val Phe Ser Leu Asp Thr Ser Val Ser Thr Ala Tyr
 65 70 75 80

Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Asn Pro Pro Tyr Tyr Tyr Gly Thr Asn Asn Ala Glu Ala Met
 100 105 110

Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr
 115 120 125

Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser
 130 135 140

Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
 145 150 155 160

Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
 165 170 175

Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
 180 185 190

Val	Val	Thr	Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Lys	Thr	Tyr	Thr	Cys
		195					200					205			
Asn	Val	Asp	His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu
	210					215					220				
Ser	Lys	Tyr	Gly	Pro	Pro	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Phe	Leu
225					230					235					240
Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu
				245					250					255	
Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser
			260					265					270		
Gln	Glu	Asp	Pro	Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu
		275					280					285			
Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	Asn	Ser	Thr
	290					295					300				
Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn
305					310					315					320
Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Pro	Ser	Ser
				325					330					335	
Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln
			340					345					350		
Val	Tyr	Thr	Leu	Pro	Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val
		355					360					365			
Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val
	370					375					380				
Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro
385					390					395					400
Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Arg	Leu	Thr
				405					410					415	
Val	Asp	Lys	Ser	Arg	Trp	Gln	Glu	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val
			420					425					430		
Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu
		435					440					445			

Ser Leu Gly
450

<210> 728

<211> 1353

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 728

caggtgcagc	tggtgcagtc	aggcgccgaa	gtgaagaaac	ccggcgctag	tgtgaaagtc	60
agctgtaaaag	ctagtggcctt	caccctgact	aactacggga	tgaactgggt	ccgccaggcc	120
ccaggtcaag	gcctcgagtg	gatgggctgg	attaacaccg	acaccggcga	gcctacctac	180
gccgacgact	ttaagggcag	attcgtgttt	agcctggaca	ctagtgtgtc	taccgcctac	240
ctgcagatct	ctagcctgaa	ggccgaggac	accgccgtct	actactgcgc	tagaaacccc	300
ccctactact	acggcactaa	caacgccgag	gctatggact	actgggggtca	aggcactacc	360
gtgaccgtgt	ctagcgctag	cactaagggc	ccgtccgtgt	tccccctggc	accttgtagc	420
cggagcacta	gcgaatccac	cgtcgccctc	ggctgcctgg	tcaaggatta	cttcccggag	480
cccgtgaccg	tgtcctggaa	cagcggagcc	ctgacctccg	gagtgcacac	cttccccgct	540
gtgctgcaga	gctccgggct	gtactcgctg	tcgtcgggtg	tcacggtgcc	ttcatctagc	600
ctgggtacca	agacctacac	ttgcaacgtg	gaccacaagc	cttccaacac	taaggtggac	660
aagcgcgtcg	aatcgaagta	cggcccaccg	tgcccgccct	gtcccgcgcc	ggagttcctc	720
ggcggtcctt	cggctctttct	gttcccaccg	aagcccaagg	acactttgat	gatttcccgc	780
acccctgaag	tgacatgcgt	ggtcgtggac	gtgtcacagg	aagatccgga	ggtgcagttc	840
aattggtacg	tggatggcgt	cgaggtgcac	aacgccaaaa	ccaagccgag	ggaggagcag	900
ttcaactcca	cttaccgcgt	cgtgtccgtg	ctgacgggtg	tgcacagga	ctggctgaac	960
gggaaggagt	acaagtgcaa	agtgtccaac	aagggacttc	ctagctcaat	cgaaaagacc	1020
atctcgaaag	ccaagggaca	gccccgggaa	ccccaaagtgt	ataccctgcc	accgagccag	1080
gaagaaatga	ctaagaacca	agtctcattg	acttgccctt	tgaagggctt	ctacccatcg	1140
gatatcgccg	tggaatggga	gtccaacggc	cagccggaaa	acaactacaa	gaccaccctt	1200
ccggtgctgg	actcagacgg	atccttcttc	ctctactcgc	ggctgaccgt	ggataagagc	1260
agatggcagg	agggaatgt	gttcagctgt	tctgtgatgc	atgaagccct	gcacaaccac	1320
tacactcaga	agtcctgtgc	cctctccctg	gga			1353

<210> 729
<211> 1353
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 729
caggtgcagc tgggtgcagtc tggcgccgaa gtgaagaaac ctggcgcctc cgtgaagggtg 60
tcctgcaagg cctctggctt caccctgacc aactacggca tgaactgggt gcgacaggcc 120
cctggacagg gcctggaatg gatgggcttg atcaacaccg acaccggcga gcctacctac 180
gccgacgact tcaagggcag attcgtgttc tccctggaca cctccgtgtc caccgcctac 240
ctgcagatct ccagcctgaa ggccgaggat accgccgtgt actactgcgc ccggaacccc 300
ccttactact acggcaccaa caacgccgag gccatggact attggggcca gggcaccacc 360
gtgaccgtgt cctctgcttc taccaagggg cccagcgtgt tccccctggc cccctgctcc 420
agaagcacca gcgagagcac agccgccctg ggctgcctgg tgaaggacta cttccccgag 480
cccgtgaccg tgtcctggaa cagcggagcc ctgaccagcg gcgtgcacac cttccccgcc 540
gtgctgcaga gcagcggcct gtacagcctg agcagcgtgg tgaccgtgcc cagcagcagc 600
ctgggaccca agacctacac ctgtaacgtg gaccacaagc ccagcaacac caaggtggac 660
aagaggggtg agagcaagta cggcccaccc tgccccccct gccagcccc cgagttcctg 720
ggcggaccca gcgtgttcct gttccccccc aagcccaagg acaccctgat gatcagcaga 780
acccccgagg tgacctgtgt ggtggtggac gtgtcccagg aggaccccga ggtccagttc 840
aactggtacg tggacggcgt ggaggtgcac aacgccaaaga ccaagcccag agaggagcag 900
tttaacagca cctaccgggt ggtgtccgtg ctgaccgtgc tgcaccagga ctggctgaac 960
ggcaaagagt acaagtgtaa ggtctccaac aagggcctgc caagcagcat cgaaaagacc 1020
atcagcaagg ccaagggcca gcctagagag ccccaggtct acaccctgcc acccagccaa 1080
gaggagatga ccaagaacca ggtgtccctg acctgtcttg tgaagggctt ctaccaagc 1140
gacatcgccg tggagtggga gagcaacggc cagcccgaga acaactacaa gaccaccccc 1200
ccagtgtctg acagcgacgg cagcttcttc ctgtacagca ggctgaccgt ggacaagtcc 1260
agatggcagg agggcaacgt ctttagctgc tccgtgatgc acgaggccct gcacaaccac 1320
tacaccaga agagcctgag cctgtccctg ggc 1353

<210> 730
<211> 107
<212> PRT
<213> Artificial Sequence

<220>

<221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 730
 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 Ser Ser Ser Gln Asp Ile Ser Asn Tyr
 20 25 30
 Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45
 Tyr Tyr Thr Ser Thr Leu His Leu Gly Ile Pro Pro Arg Phe Ser Gly
 50 55 60
 Ser Gly Tyr Gly Thr Asp Phe Thr Leu Thr Ile Asn Asn Ile Glu Ser
 65 70 75 80
 Glu Asp Ala Ala Tyr Phe Cys Gln Gln Tyr Tyr Asn Leu Pro Trp
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 731
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 731
 gatattcaga tgactcagtc acctagtagc ctgagcgcta gtgtgggcga tagagtgact 60
 atcacctgta gctctagtca ggatatctct aactacctga actggtatca gcagaagccc 120
 ggtaaagccc ctaagctgct gatctactac actagcacc tgcacctggg aatccccccct 180
 aggttttagcg gtagcggcta cggcaccgac ttcaccctga ctattaacaa tatcgagtca 240
 gaggacgccg cctactactt ctgtcagcag tactataacc tgccctggac cttcgggtcaa 300
 ggcactaagg tcgagattaa g 321

<210> 732
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 732
gacatccaga tgaccagtc cccctccagc ctgtctgctt ccgtgggcga cagagtgacc 60
atcacctgtt cctccagcca ggacatctcc aactacctga actggatatca gcagaagccc 120
ggcaaggccc ccaagctgct gatctactac acctccaccc tgcacctggg catccccct 180
agattctccg gctctggcta cggcaccgac ttcacctga ccatcaacaa catcgagtcc 240
gaggacgccg cctactactt ctgccagcag tactacaacc tgccctggac cttcggccag 300
ggcaccaagg tggaatcaa g 321

<210> 733

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 733

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 Ser Ser Ser Gln Asp Ile Ser Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Tyr Thr Ser Thr Leu His Leu Gly Ile Pro Pro Arg Phe Ser Gly
50 55 60

Ser Gly Tyr Gly Thr Asp Phe Thr Leu Thr Ile Asn Asn Ile Glu Ser
65 70 75 80

Glu Asp Ala Ala Tyr Tyr Phe Cys Gln Gln Tyr Tyr Asn Leu Pro Trp
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 734
<211> 642
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 734
gatattcaga tgactcagtc acctagtagc ctgagcgcta gtgtgggcga tagagtgact 60
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ggtaaagccc ctaagctgct gatctactac actagcacc tgcacctggg aatccccct 180
aggtttagcg gtagcggcta cggcaccgac ttcaccctga ctattaacaa tatcgagtca 240
gaggacgccg cctactactt ctgtcagcag tactataacc tgccctggac cttcgggtcaa 300
ggcactaagg tcgagattaa gcgtacggtg gccgctccca gcgtgttcat cttccccccc 360
agcgacgagc agctgaagag cggcaccgcc agcgtggtgt gcctgctgaa caacttctac 420
ccccgggagg ccaaggtgca gtggaaggtg gacaacgccc tgcagagcgg caacagccag 480
gagagcgtca ccgagcagga cagcaaggac tccacctaca gcctgagcag caccctgacc 540
ctgagcaagg ccgactacga gaagcataag gtgtacgcct gcgaggtgac ccaccagggc 600
ctgtccagcc ccgtgaccaa gagcttcaac aggggcgagt gc 642

<210> 735
<211> 642
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 735
gacatccaga tgaccagtc cccctccagc ctgtctgctt ccgtgggcga cagagtgacc 60
atcacctgtt cctccagcca ggacatctcc aactacctga actggtatca gcagaagccc 120
ggcaaggccc ccaagctgct gatctactac acctccaccc tgcacctggg catccccct 180
agattctccg gctctggcta cggcaccgac ttcaccctga ccatcaacaa catcgagtcc 240
gaggacgccg cctactactt ctgccagcag tactacaacc tgccctggac cttcggccag 300
ggcaccaagg tggaaatcaa gcgtacggtg gccgctccca gcgtgttcat cttcccccca 360
agcgacgagc agctgaagag cggcaccgcc agcgtggtgt gtctgctgaa caacttctac 420
cccagggagg ccaaggtgca gtggaaggtg gacaacgcc tgcagagcgg caacagccag 480
gagagcgtca ccgagcagga cagcaaggac tccacctaca gcctgagcag caccctgacc 540
ctgagcaagg ccgactacga gaagcacaag gtgtacgcct gtgaggtgac ccaccagggc 600
ctgtccagcc ccgtgaccaa gagcttcaac aggggagcagc gc 642

<210> 736
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 736
aattacggga tgaac 15

<210> 737
<211> 15
<212> DNA
<213> Artificial Sequence
<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 737
aactacggca tgaac 15

<210> 738
<211> 51
<212> DNA
<213> Artificial Sequence
<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 738
tgattaaca ccgacaccgg ggagcctacc tacgcggacg atttcaaggg a 51

<210> 739
 <211> 51
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
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 <400> 739
 tggatcaaca ccgacaccgg cgagcctacc tacgccgacg acttcaaggg c 51

 <210> 740
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
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 <400> 740
 aacccgacct actactacgg aaccaacaac gccgaagcca tggactac 48

 <210> 741
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
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 <400> 741
 aacccccctt actactacgg caccaacaac gccgaggcca tggactat 48

 <210> 742
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
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 <400> 742
 ggattcaccc tcaccaatta c 21

 <210> 743
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>

<221> source
 <223> /note="Description of Artificial Sequence: Synthetic
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 <400> 743
 ggcttcaccc tgaccaacta c 21

 <210> 744
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
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 <400> 744
 aacaccgaca ccgggggag 18

 <210> 745
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
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 <400> 745
 aacaccgaca ccggcgag 18

 <210> 746
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
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 <400> 746
 agctctagtc aggatatctc taactacctg aac 33

 <210> 747
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
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 <400> 747
 tctccagcc aggacatctc caactacctg aac 33

<210> 748
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
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 <400> 748
 tacactagca ccctgcacct g 21

<210> 749
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
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 <400> 749
 tacacctcca ccctgcacct g 21

<210> 750
 <211> 27
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

 <400> 750
 cagcagtact ataacctgcc ctggacc 27

<210> 751
 <211> 27
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

 <400> 751
 cagcagtact acaacctgcc ctggacc 27

<210> 752
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic

oligonucleotide"

<400> 752
agtcaggata tctctaacta c 21

<210> 753
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 753
agccaggaca tctccaacta c 21

<210> 754
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 754
tacactagc 9

<210> 755
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 755
tacacctcc 9

<210> 756
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
oligonucleotide"

<400> 756
tactataacc tgccctgg 18

<210> 757
<211> 18

<212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

 <400> 757
 tactacaacc tgccctgg 18

<210> 758
 <211> 15
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

 <400> 758
 aactacggga tgaac 15

<210> 759
 <211> 51
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

 <400> 759
 tggattaaca ccgacaccgg cgagcctacc tacgccgacg actttaagg c 51

<210> 760
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

 <400> 760
 aacccccct actactacgg cactaacaac gccgaggcta tggactac 48

<210> 761
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 oligonucleotide"

<400> 761
ggcttcacccc tgactaacta c

21

<210> 762
<211> 447
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 762
Gln Val Gln Leu Gln Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
1 5 10 15

Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Asp Tyr
20 25 30

Tyr Trp Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Glu Ile Asn His Arg Gly Ser Thr Asn Ser Asn Pro Ser Leu Lys
50 55 60

Ser Arg Val Thr Leu Ser Leu Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80

Lys Leu Arg Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Phe Gly Tyr Ser Asp Tyr Glu Tyr Asn Trp Phe Asp Pro Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130 135 140

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
145 150 155 160

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys

195

200

205

Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro
 210 215 220

Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro Ser Val
 225 230 235 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
 245 250 255

Pro Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu
 260 265 270

Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
 275 280 285

Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val Val Ser
 290 295 300

Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
 305 310 315 320

Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile
 325 330 335

Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
 340 345 350

Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
 355 360 365

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
 370 375 380

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser
 385 390 395 400

Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu Thr Val Asp Lys Ser Arg
 405 410 415

Trp Gln Glu Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
 420 425 430

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly Lys
 435 440 445

<210> 763

<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 763
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Ser Asn Trp Pro Leu
85 90 95

Thr Phe Gly Gln Gly Thr Asn Leu Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 764
<211> 446
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 764
Gln Val Gln Leu Lys Glu Ser Gly Pro Gly Leu Val Ala Pro Ser Gln
1 5 10 15

Ser Leu Ser Ile Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Ala Tyr
20 25 30

Gly Val Asn Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Met Ile Trp Asp Asp Gly Ser Thr Asp Tyr Asn Ser Ala Leu Lys
50 55 60

Ser Arg Leu Ser Ile Ser Lys Asp Asn Ser Lys Ser Gln Val Phe Leu
65 70 75 80

Lys Met Asn Ser Leu Gln Thr Asp Asp Thr Ala Arg Tyr Tyr Cys Ala
85 90 95

Arg Glu Gly Asp Val Ala Phe Asp Tyr Trp Gly Gln Gly Thr Thr Leu
100 105 110

Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala
115 120 125

Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu
130 135 140

Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly
145 150 155 160

Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser
165 170 175

Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu
180 185 190

Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr
195 200 205

Lys	Val	Asp	Lys	Lys	Val	Glu	Pro	Lys	Ser	Cys	Asp	Lys	Thr	His	Thr	210	215	220	
Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	225	230	235	240
Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	245	250	255	
Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	His	Glu	Asp	Pro	Glu	Val	260	265	270	
Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	275	280	285	
Lys	Pro	Arg	Glu	Glu	Gln	Tyr	Asn	Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	290	295	300	
Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	305	310	315	320
Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	325	330	335	
Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	340	345	350	
Ser	Arg	Asp	Glu	Leu	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	355	360	365	
Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	370	375	380	
Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp	385	390	395	400
Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	405	410	415	
Gln	Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	420	425	430	
Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Pro	Gly	Lys	435	440	445			
<210> 765																			
<211> 220																			
<212> PRT																			

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 765

Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ala Val Ser Val Gly
1 5 10 15

Gln Lys Val Thr Met Ser Cys Lys Ser Ser Gln Ser Leu Leu Asn Gly
20 25 30

Ser Asn Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45

Ser Pro Lys Leu Leu Val Tyr Phe Ala Ser Thr Arg Asp Ser Gly Val
50 55 60

Pro Asp Arg Phe Ile Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65 70 75 80

Ile Ser Ser Val Gln Ala Glu Asp Leu Ala Asp Tyr Phe Cys Leu Gln
85 90 95

His Phe Gly Thr Pro Pro Thr Phe Gly Gly 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> 766
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 766
Gly Phe Thr Leu Thr Asn Tyr Gly Met Asn
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<210> 767

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<210> 800

<400> 800
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<210> 801

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 801

Ser Tyr Asn Met His
1 5

<210> 802

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 802

Asp Ile Tyr Pro Gly Asn Gly Asp Thr Ser Tyr Asn Gln Lys Phe Lys
1 5 10 15

Gly

<210> 803

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 803

Val Gly Gly Ala Phe Pro Met Asp Tyr
1 5

<210> 804

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 804

Gly Tyr Thr Phe Thr Ser Tyr
1 5

<210> 805

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 805

Tyr Pro Gly Asn Gly Asp
1 5

<210> 806

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 806

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Asn Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Asp Ile Tyr Pro Gly Asn Gly Asp Thr Ser Tyr Asn Gln Lys Phe
50 55 60

Lys Gly Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Val Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Val Gly Gly Ala Phe Pro Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser
115

<210> 807
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 807
cagggtgcagc tggtgcagtc aggcgccgaa gtgaagaaac ccggctctag cgtgaaagtt 60
tcttgtaaag ctatgtggcta caccttcact agctataata tgcactgggt tcgccaggcc 120
ccagggcaag gcctcgagtg gatgggcat atctaccccg ggaacggcga cactagttat 180
aatcagaagt ttaagggtag agtcactatc accgccgata agtctactag caccgtctat 240
atggaactga gttccctgag gtctgaggac accgccgtct actactgcgc tagagtgggc 300
ggagccttcc ctatggacta ctgggggtcaa ggactaccg tgaccgtgtc tagc 354

<210> 808
<211> 444
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 808
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Asn	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Met	35	40	45
Gly	Asp	Ile	Tyr	Pro	Gly	Asn	Gly	Asp	Thr	Ser	Tyr	Asn	Gln	Lys	Phe	50	55	60
Lys	Gly	Arg	Val	Thr	Ile	Thr	Ala	Asp	Lys	Ser	Thr	Ser	Thr	Val	Tyr	65	70	75
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	85	90	95
Ala	Arg	Val	Gly	Gly	Ala	Phe	Pro	Met	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	100	105	110
Thr	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe	Pro	115	120	125
Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	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
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	Lys	Thr	Tyr	Thr	Cys	Asn	Val	Asp	His	Lys	Pro	Ser	195	200	205
Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu	Ser	Lys	Tyr	Gly	Pro	Pro	Cys	210	215	220
Pro	Pro	Cys	Pro	Ala	Pro	Glu	Phe	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	225	230	235
Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	245	250	255
Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	Gln	Glu	Asp	Pro	Glu	Val	Gln	260	265	270
Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	275	280	285

Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu
290 295 300

Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys
305 310 315 320

Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys
325 330 335

Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
340 345 350

Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
355 360 365

Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
370 375 380

Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly
385 390 395 400

Ser Phe Phe Leu Tyr Ser Arg Leu Thr Val Asp Lys Ser Arg Trp Gln
405 410 415

Glu Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
420 425 430

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly
435 440

<210> 809

<211> 1332

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 809

caggtgcagc tgggtgcagtc aggcgccgaa gtgaagaaac ccggctctag cgtgaaagtt 60

tcttgtaaag ctagtggcta caccttcact agctataata tgcactgggt tcgccaggcc 120

ccagggcaag gcctcgagtg gatgggcat atctaccccg ggaacggcga cactagttat 180

aatcagaagt ttaagggtag agtcactatc accgccgata agtctactag caccgtctat 240

atggaactga gttccctgag gtctgaggac accgccgtct actactgctc tagagtgggc 300

ggagccttcc ctatggacta ctgggggtcaa ggcactaccg tgaccgtgtc tagcgctagc 360

actaagggcc cgtccgtgtt ccccctggca ccttgtagcc ggagcactag cgaatccacc 420

gctgccctcg gctgcctggt caaggattac ttcccggagc ccgtgaccgt gtcctggaac	480
agcggagccc tgacctccgg agtgcacacc ttccccgctg tgctgcagag ctccgggctg	540
tactcgctgt cgtcgggtggt cacgggtgcct tcatctagcc tgggtaccaa gacctacact	600
tgcaacgtgg accacaagcc ttccaacact aaggtggaca agcgcgtcga atcgaagtac	660
ggcccaccgt gcccgcttg tcccgcgccg gagttcctcg gcggtccctc ggtctttctg	720
ttcccaccga agcccaagga cactttgatg atttcccgca cccctgaagt gacatgcgtg	780
gtcgtggacg tgtcacagga agatccggag gtgcagttca attggtacgt ggatggcgtc	840
gaggtgcaca acgccaaaac caagccgagg gaggagcagt tcaactccac ttaccgcgtc	900
gtgtccgtgc tgacgggtgt gcatcaggac tggctgaacg ggaaggagta caagtgcaa	960
gtgtccaaca agggacttcc tagctcaatc gaaaagacca tctcgaaagc caagggacag	1020
ccccgggaac cccaagtgt taccctgcc ccgagccagg aagaaatgac taagaaccaa	1080
gtctcattga cttgccttgt gaagggcttc taccatcgg atatcgccgt ggaatgggag	1140
tccaacggcc agccggaaaa caactacaag accaccctc cggtgctgga ctcagacgga	1200
tccttcttcc tctactcgcg gctgaccgtg gataagagca gatggcagga gggaaatgtg	1260
ttcagctgtt ctgtgatgca tgaagccctg cacaaccact acactcagaa gtccctgtcc	1320
ctctccctgg ga	1332

<210> 810

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 810

Arg	Ala	Ser	Glu	Ser	Val	Glu	Tyr	Tyr	Gly	Thr	Ser	Leu	Met	Gln
1				5					10					15

<210> 811

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 811

Ala	Ala	Ser	Asn	Val	Glu	Ser
1				5		

<210> 812
 <211> 9
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

 <400> 812
 Gln Gln Ser Arg Lys Asp Pro Ser Thr
 1 5

 <210> 813
 <211> 11
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

 <400> 813
 Ser Glu Ser Val Glu Tyr Tyr Gly Thr Ser Leu
 1 5 10

 <210> 814
 <211> 3
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

 <400> 814
 Ala Ala Ser
 1

 <210> 815
 <211> 6
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

 <400> 815
 Ser Arg Lys Asp Pro Ser
 1 5

 <210> 816
 <211> 111
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

 <400> 816
 Ala Ile Gln Leu 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 Glu Ser Val Glu Tyr Tyr
 20 25 30

 Gly Thr Ser Leu Met Gln Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro
 35 40 45

 Lys Leu Leu Ile Tyr Ala Ala Ser Asn Val Glu Ser Gly Val Pro Ser
 50 55 60

 Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser
 65 70 75 80

 Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Ser Arg
 85 90 95

 Lys Asp Pro Ser Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
 100 105 110

<210> 817
 <211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 817
 gctattcagc tgactcagtc acctagtagc ctgagcgcta gtgtgggcga tagagtgact 60
 atcacctgta gagctagtga atcagtcgag tactacggca ctagcctgat gcagtgggtat 120
 cagcagaagc ccgggaaagc ccctaagctg ctgatctacg ccgcctctaa cgtggaatca 180
 ggcgtgccct ctaggttttag cggtagcggc agtggcaccg acttcaccct gactatctct 240
 agcctgcagc ccgaggactt cgctacctac ttctgtcagc agtctaggaa ggaccctagc 300
 accttcggcg gaggcactaa ggctcgagatt aag 333

<210> 818
 <211> 218
 <212> PRT
 <213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 818

Ala Ile Gln Leu 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 Glu Ser Val Glu Tyr Tyr
20 25 30

Gly Thr Ser Leu Met Gln Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro
35 40 45

Lys Leu Leu Ile Tyr Ala Ala Ser Asn Val Glu Ser Gly Val Pro Ser
50 55 60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser
65 70 75 80

Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Ser Arg
85 90 95

Lys Asp Pro Ser Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105 110

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
115 120 125

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
130 135 140

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
145 150 155 160

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
165 170 175

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
180 185 190

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
195 200 205

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 819

<211> 654

<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 819
gctattcagc tgactcagtc acctagtagc ctgagcgcta gtgtgggcga tagagtgact 60
atcacctgta gagctagtga atcagtcgag tactacggca ctagcctgat gcagtggat 120
cagcagaagc ccgggaaagc ccctaagctg ctgatctacg ccgcctctaa cgtggaatca 180
ggcgtgccct ctaggttttag cggtagcggc agtggcaccg acttcaccct gactatctct 240
agcctgcagc ccgaggactt cgctacctac ttctgtcagc agtctaggaa ggaccctagc 300
accttcggcg gaggcactaa ggtcgagatt aagcgtacgg tggccgctcc cagcgtgttc 360
atcttcccc ccagcgacga gcagctgaag agcggcaccg ccagcgtggc gtgcctgctg 420
aacaacttct acccccgga ggccaaggc cagtggagg tggacaacgc cctgcagagc 480
ggcaacagcc aggagagcgt caccgagcag gacagcaagg actccaccta cagcctgagc 540
agcaccctga ccctgagcaa ggccgactac gagaagcata aggtgtacgc ctgagaggtg 600
accaccagg gcctgtccag ccccgtagc aagagcttca acaggggcga gtgc 654

<210> 820
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 820
Asp Ile Tyr Pro Gly Gln Gly Asp Thr Ser Tyr Asn Gln Lys Phe Lys
1 5 10 15

Gly

<210> 821
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 821
Tyr Pro Gly Gln Gly Asp
1 5

<210> 822
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 822
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Asn Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Asp Ile Tyr Pro Gly Gln Gly Asp Thr Ser Tyr Asn Gln Lys Phe
50 55 60

Lys Gly Arg Ala Thr Met Thr Ala Asp Lys Ser Thr Ser Thr Val Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Val Gly Gly Ala Phe Pro Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 823
<211> 354
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 823
caggtgcagc tgggtgcagtc aggcgccgaa gtgaagaaac ccggcgctag tgtgaaagtt 60
agctgtaaag ctagtggcta tactttcact tcttataata tgcactgggt ccgccaggcc 120
ccaggtcaag gcctcgagtg gatcggcgat atctaccccg gtcaaggcga cacttcctat 180
aatcagaagt ttaagggtag agctactatg accgccgata agtctacttc taccgtctat 240

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atggaactga gttccctgag gtctgaggac accgccgtct actactgcgc tagagtgggc      300
ggagccttcc caatggacta ctgggggtcaa ggcaccctgg tcaccgtgtc tagc          354

<210> 824
<211> 444
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
        polypeptide"

<400> 824
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1              5              10              15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
          20              25              30

Asn Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
          35              40              45

Gly Asp Ile Tyr Pro Gly Gln Gly Asp Thr Ser Tyr Asn Gln Lys Phe
          50              55              60

Lys Gly Arg Ala Thr Met Thr Ala Asp Lys Ser Thr Ser Thr Val Tyr
65              70              75              80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
          85              90              95

Ala Arg Val Gly Gly Ala Phe Pro Met 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 Cys Ser Arg Ser Thr Ser Glu Ser 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 Lys Thr Tyr Thr Cys Asn Val Asp His Lys Pro Ser
 195 200 205

Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys
 210 215 220

Pro Pro Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro Ser Val Phe Leu
 225 230 235 240

Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
 245 250 255

Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln
 260 265 270

Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys
 275 280 285

Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu
 290 295 300

Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys
 305 310 315 320

Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys
 325 330 335

Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
 340 345 350

Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
 355 360 365

Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
 370 375 380

Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly
 385 390 395 400

Ser Phe Phe Leu Tyr Ser Arg Leu Thr Val Asp Lys Ser Arg Trp Gln
 405 410 415

Glu Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
 420 425 430

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly
 435 440

<210> 825
<211> 1332
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 825
caggtgcagc tgggtgcagtc aggcgccgaa gtgaagaaac ccggcgctag tgtgaaagtt 60
agctgtaaaag ctagtggcta tactttcact tcttataata tgcactgggt ccgccaggcc 120
ccaggtcaag gcctcgagtg gatcggcgat atctaccccg gtcaaggcga cacttcctat 180
aatcagaagt ttaagggtag agctactatg accgccgata agtctacttc taccgtctat 240
atggaactga gttccctgag gtctgaggac accgccgtct actactgcgc tagagtgggc 300
ggagccttcc caatggacta ctgggggtcaa ggcaccctgg tcaccgtgtc tagcgctagc 360
actaagggcc cgtccgtggt ccccttgga ccttgtagcc ggagcactag cgaatccacc 420
gctgccctcg gctgcctggt caaggattac ttcccgagc ccgtgaccgt gtcctggaac 480
agcggagccc tgacctccgg agtgcacacc ttcccgcgtg tgctgcagag ctccgggctg 540
tactcgctgt cgtcgggtgt cacgggtgcct tcatctagcc tgggtaccaa gacctacact 600
tgcaacgtgg accacaagcc ttccaacact aaggtggaca agcgcgtcga atcgaagtac 660
ggcccaccgt gcccgcttg tcccgcccg gagttcctcg gcgggtccctc ggtctttctg 720
ttcccaccga agcccaagga cactttgatg atttcccgca cccctgaagt gacatgcgtg 780
gtcgtggacg tgtcacagga agatccggag gtgcagttca attggtacgt ggatggcgtc 840
gaggtgcaca acgccaaaac caagccgagg gaggagcagt tcaactccac ttaccgcgtc 900
gtgtccgtgc tgacgggtgt gcatcaggac tgggtgaacg ggaaggagta caagtgcaaa 960
gtgtccaaca agggacttcc tagctcaatc gaaaagacca tctcgaaagc caagggacag 1020
ccccgggaac cccaagtgt taccctgcc cccagccagg aagaaatgac taagaaccaa 1080
gtctcattga cttgccttgt gaagggcttc taccatcgg atatcgccgt ggaatgggag 1140
tccaacggcc agccggaaaa caactacaag accaccctc cggtgctgga ctgagacgga 1200
tccttcttcc tctactcgcg gctgaccgtg gataagagca gatggcagga gggaaatgtg 1260
ttcagctgtt ctgtgatgca tgaagccctg cacaaccact aactcagaa gtccctgtcc 1320
ctctccctgg ga 1332

<210> 826
<211> 111
<212> PRT
<213> Artificial Sequence

<220>

<221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

 <400> 826
 Asp Ile Val Leu Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15

 Glu Arg Ala Thr Ile Asn Cys Arg Ala Ser Glu Ser Val Glu Tyr Tyr
 20 25 30

 Gly Thr Ser Leu Met Gln Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
 35 40 45

 Lys Leu Leu Ile Tyr Ala Ala Ser Asn Val Glu Ser Gly Val Pro Asp
 50 55 60

 Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser
 65 70 75 80

 Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln Ser Arg
 85 90 95

 Lys Asp Pro Ser Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
 100 105 110

<210> 827
 <211> 333
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 827
 gatatcgtcc tgactcagtc acccgatagc ctggccgtca gcctgggcga gcgggctact 60
 attaactgta gagctagtga atcagtcgag tactacggca ctagcctgat gcagtggat 120
 cagcagaagc ccggtcaacc ccctaagctg ctgatctacg ccgcctctaa cgtggaatca 180
 ggcgtgccc ataggttttag cggtagcgg agtggcaccg acttcaccct gactattagt 240
 agcctgcagg ccgaggacgt ggccgtctac tactgtcagc agtctaggaa ggaccctagc 300
 accttcggcg gaggcactaa ggtcgagatt aag 333

<210> 828
 <211> 218
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 828

Asp Ile Val Leu Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Arg Ala Ser Glu Ser Val Glu Tyr Tyr
20 25 30

Gly Thr Ser Leu Met Gln Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
35 40 45

Lys Leu Leu Ile Tyr Ala Ala Ser Asn Val Glu Ser Gly Val Pro Asp
50 55 60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser
65 70 75 80

Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln Ser Arg
85 90 95

Lys Asp Pro Ser Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105 110

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
115 120 125

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
130 135 140

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
145 150 155 160

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
165 170 175

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
180 185 190

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
195 200 205

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 829

<211> 654

<212> DNA

<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 829
gatatcgtcc tgactcagtc acccgatagc ctggccgtca gcctgggcga gcgggctact 60
attaactgta gagctagtga atcagtcgag tactacggca ctagcctgat gcagtgggat 120
cagcagaagc ccggtcaacc ccctaagctg ctgatctacg ccgcctctaa cgtggaatca 180
ggcgtgcccg ataggttttag cggtagcggg agtggcaccg acttcaccct gactattagt 240
agcctgcagg ccgaggacgt ggccgtctac tactgtcagc agtctaggaa ggaccctagc 300
accttcggcg gaggcactaa ggtcgagatt aagcgtacgg tggccgctcc cagcgtgttc 360
atcttcccc ccagcgacga gcagctgaag agcggcaccg ccagcgtggg gtgcctgctg 420
aacaacttct acccccggga ggccaagggt cagtggaagg tggacaacgc cctgcagagc 480
ggcaacagcc aggagagcgt caccgagcag gacagcaagg actccaccta cagcctgagc 540
agcaccctga ccctgagcaa ggccgactac gagaagcata aggtgtacgc ctgcgagggtg 600
accaccagg gcctgtccag ccccgtagcc aagagcttca acaggggcga gtgc 654

<210> 830
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 830
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ala Ser Gly Phe Thr Phe Ser Ser
20 25 30

Tyr Asp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Asp Trp
35 40 45

Val Ser Thr Ile Ser Gly Gly Gly Thr Tyr Thr Tyr Tyr Gln Asp Ser
50 55 60

Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu
65 70 75 80

Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Ser Met Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser
100 105 110

Ser Ala

<210> 831
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
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<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

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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 Ser Ile Arg Arg Tyr
20 25 30

Leu Asn Trp Tyr His Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Thr 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 Val Tyr Tyr Cys Gln Gln Ser His Ser Ala Pro Leu
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 832
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
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<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 832
Glu Val Gln Val Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Tyr Cys Val Ala Ser Gly Phe Thr Phe Ser Gly Ser

20

25

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Tyr Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
 35 40 45

Val Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser
 50 55 60

Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu
 65 70 75 80

Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr
 85 90 95

Cys Ala Lys Lys Tyr Tyr Val Gly Pro Ala Asp Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser Gly
 115 120

<210> 833

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
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<400> 833

Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1 5 10 15

Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
 20 25 30

Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln His Lys Pro Gly Gln
 35 40 45

Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50 55 60

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65 70 75 80

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85 90 95

Tyr Tyr Ser Ser Pro Leu Thr Phe Gly Gly Gly Thr Lys Ile Glu Val
 100 105 110

Lys

<210> 834

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<210> 900

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<210> 901

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 901

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ser Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Leu Ser Ser Tyr
20 25 30

Gly Val Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Gly Val Ile Trp Gly Gly Gly Gly Thr Tyr Tyr Ala Ser Ser Leu Met
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu
65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg His Ala Tyr Gly His Asp Gly Gly Phe Ala Met Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser

<210> 902
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 902
 Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Glu Ser Val Ser Ser Asn
 20 25 30

Val Ala Trp Tyr Gln Gln Arg Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35 40 45

Tyr Gly Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro
 65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gly Gln Ser Tyr Ser Tyr Pro Phe
 85 90 95

Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
 100 105

<210> 903
 <211> 451
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 903
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Ser Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Leu Ser Ser Tyr
 20 25 30

Gly Val Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Gly Val Ile Trp Gly Gly Gly Gly Thr Tyr Tyr Ala Ser Ser Leu Met
 50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu
 65 70 75 80

Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg His Ala Tyr Gly His Asp Gly Gly Phe Ala Met Asp Tyr Trp Gly
 100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
 115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205

Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys
 210 215 220

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 225 230 235 240

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
 290 295 300

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
305 310 315 320

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
325 330 335

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
340 345 350

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
355 360 365

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 904

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 904

Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Glu Ser Val Ser Ser Asn
20 25 30

Val Ala Trp Tyr Gln Gln Arg Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gly Gln Ser Tyr Ser Tyr Pro Phe
85 90 95

Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 905

<211> 363

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 905

gaggtgcagc tgggtggaatc tggcgggcgga ctggtgcagt ccggcggctc tctgagactg 60

tcttgcgctg cctccggctt ctccctgtcc tcttacggcg tggactgggt gcgacaggcc 120

cctggcaagg gcctggaatg ggtgggagt atctggggcg gaggcggcac ctactacgcc 180

tcttccctga tgggccgggt caccatctcc cgggacaact ccaagaacac cctgtacctg 240

cagatgaact ccctgcgggc cgaggacacc gccgtgtact actgcgccag acacgcctac 300

ggccacgacg gcggcttcgc catggattat tggggccagg gcaccctggt gacagtgtcc	360
tcc	363

<210> 906
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 906	
gagatcgtga tgaccagtc ccccgccacc ctgtctgtgt ctcccggcga gagagccacc	60
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ggtcaggccc ctcggtctgt gatctacggc gcctctaacc gggccaccgg catccctgcc	180
agattctccg gctccggcag cggcaccgac ttaccctga ccatctcccg gctggaaccc	240
gaggacttcg ccgtgtacta ctgcggccag tcctactcat accccttcac cttcggccag	300
ggcaccaagc tggaatcaa g	321

<210> 907
 <211> 1353
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 907	
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cctggcaagg gcctggaatg ggtgggagt atctggggcg gaggcggcac ctactacgcc	180
tcttccctga tgggccggtt caccatctcc cgggacaact ccaagaacac cctgtacctg	240
cagatgaact ccctgcgggc cgaggacacc gccgtgtact actgcgccag acacgcctac	300
ggccacgacg gcggcttcgc catggattat tggggccagg gcaccctggt gacagtgtcc	360
tccgctagca ccaagggccc aagtgtgttt cccctggccc ccagcagcaa gtctacttcc	420
ggcggaactg ctgccctggg ttgcctggtg aaggactact tccccgagcc cgtgacagtg	480
tcctggaact ctggggctct gacttccggc gtgcacacct tccccgccgt gctgcagagc	540
agcggcctgt acagcctgag cagcgtggtg acagtgccct ccagctctct gggaaccag	600
acctatatct gcaacgtgaa ccacaagccc agcaacacca aggtggacaa gagagtggag	660
cccaagagct gcgacaagac ccacacctgc cccccctgcc cagctccaga actgctggga	720

gggccttccg tgttcctggt cccccccaag cccaaggaca ccctgatgat cagcaggacc	780
cccagagtgga cctgcgtggt ggtggacgtg tcccacgagg acccagaggt gaagttcaac	840
tggtacgtgg acggcgtgga ggtgcacaac gccaaagacca agcccagaga ggagcagtac	900
aacagcacct acaggggtggt gtccgtgctg accgtgctgc accaggactg gctgaacggc	960
aaagaataca agtgcaaagt ctccaacaag gccctgccag cccaatcga aaagacaatc	1020
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gagatgacca agaaccaggt gtccctgacc tgtctggtga agggcttcta cccagcgat	1140
atcgccgtgg agtgggagag caacggccag cccgagaaca actacaagac cccccccca	1200
gtgctggaca gcgacggcag cttcttcctg tacagcaagc tgaccgtgga caagtccagg	1260
tggcagcagg gcaacgtggt cagctgcagc gtgatgcacg aggccctgca caaccactac	1320
accagaagt ccctgagcct gagccccggc aag	1353

<210> 908

<211> 642

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 908

gagatcgtga tgaccagtc ccccgccacc ctgtctgtgt ctcccggcga gagagccacc	60
ctgagctgca gagcctccga gtccgtgtcc tccaacgtgg cctggtatca gcagagacct	120
ggtcaggccc ctcggtgtgt gatctacggc gcctctaacc gggccaccgg catccctgcc	180
agattctccg gtcccggcag cggcaccgac ttcaccctga ccatctcccg gctggaacct	240
gaggacttcg ccgtgtacta ctgcggccag tcctactcat accccttcac cttcggccag	300
ggcaccaagc tggaaatcaa gcgtacggtg gccgctcca gcgtgttcat cttccccccc	360
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ccccgggagg ccaaggtgca gtggaagggt gacaacgcc tgcagagcgg caacagccag	480
gagagcgtca ccgagcagga cagcaaggac tccacctaca gcctgagcag caccctgacc	540
ctgagcaagg ccgactacga gaagcataag gtgtacgcct gcgaggtgac ccaccagggc	600
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<210> 909

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

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<221> source
<223> /note="Description of Artificial Sequence: Synthetic
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<400> 909
Ser Tyr Gly Val Asp
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<210> 910
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
      peptide"

<400> 910
Gly Phe Ser Leu Ser Ser Tyr
1           5

<210> 911
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
      peptide"

<400> 911
Val Ile Trp Gly Gly Gly Gly Thr Tyr Tyr Ala Ser Ser Leu Met Gly
1           5           10          15

<210> 912
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
      peptide"

<400> 912
Trp Gly Gly Gly Gly
1           5

<210> 913
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
      peptide"

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<400> 913
His Ala Tyr Gly His Asp Gly Gly Phe Ala Met Asp Tyr
1 5 10

<210> 914
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 914
Arg Ala Ser Glu Ser Val Ser Ser Asn Val Ala
1 5 10

<210> 915
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 915
Ser Glu Ser Val Ser Ser Asn
1 5

<210> 916
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 916
Gly Ala Ser Asn Arg Ala Thr
1 5

<210> 917
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
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<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 917
Gly Ala Ser
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<210> 918
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 918
Gly Gln Ser Tyr Ser Tyr Pro Phe Thr
1 5

<210> 919
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 919
Ser Tyr Ser Tyr Pro Phe
1 5

<210> 920
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 920
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Val Ile Trp Tyr Glu Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gly Gly Ser Met Val Arg Gly Asp Tyr Tyr Tyr Gly Met Asp
100 105 110

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 921

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 921

Ala Ile Gln Leu 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 Gly Ile Ser Ser Ala
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Asp Ala Ser Ser Leu Glu 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 Phe Asn Ser Tyr Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 922

<211> 6

<212> PRT

<213> Artificial Sequence

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<221> source

<223> /note="Description of Artificial Sequence: Synthetic
6xHis tag"

<400> 922

His His His His His His
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