

SEQUENCE LISTING

<110> Compugen Ltd

<120> POLYPEPTIDES AND POLYNUCLEOTIDES, AND USES THEREOF AS A DRUG TARGET FOR PRODUCING DRUGS AND BIOLOGICS

<130> 0000

<160> 201

<210> 1

<211> 916

<212> DNA

<213> Homo sapiens

<400> 1

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caggcgggtg atgcgtgtgg gcctcgcgct gatcttggtg ggccacgtga acctgctgct      180
ggggggccgtg ctgcatggca ccgtcctgcg gcacgtggcc aatccccgcg gcgctgtcac      240
gccggagtag accgtagcca atgtcatctc tgtcggctcg gggctgctga gcgtttccgt      300
gggacttggtg gccctcctgg cgtccaggaa cttcttcgc cctccactgc actgggtcct      360
gctggcacta gctctggtga acctgctctt gtccgttgcc tgctccctgg gcctccttct      420
tgctgtgtca ctactgtgg ccaacgggtg ccgccgcctt attgctgact gccacccagg      480
actgctggat cctctggtac cactggatga ggggccggga catactgact gcccctttga      540
ccccacaaga atctatgata cagccttggc tctctggatc cttcttttgc tcatgtctgc      600
aggggagggt gctctatctg gttactgctg tgtggctgca ctactctac gtggagttgg      660
gccctgcagg aaggacggac ttcaggggca gctagaggaa atgacagagc ttgaatctcc      720
taaagtataa aggaggaaa atgagcagct actggatcaa aatcaagaaa tccgggcatc      780
acagagaagt tgggttttag acagcaggtg ctgttccgag actcagtcct aaagggtttt      840
ttttccact aagcaagggg ccctgacctc gggatgagat aacaaattgt aataaagtaa      900
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<210> 2

<211> 78

<212> DNA

<213> Artificial

<220>

<223> Synthetic polynucleotide

<400> 2

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gtgagcgcgg caggcgaccc gggcgggggc cgggctcccg gagagcccag caggccaaag      60
gctttgtgtc ttccacag                                     78

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<210> 3

<211> 994

<212> DNA
<213> Homo sapiens

<400> 3

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caggcggctg	atgcgtgtgg	gcctcgcgct	gatcttggtg	ggccacgtga	acctgctgct	180
ggggggccgtg	ctgcatggca	ccgtcctgcg	gcacgtggcc	aatccccgcg	gcgctgtcac	240
gccggagtac	accgtagcca	atgtcatctc	tgtcggctcg	gggctgctgg	tgagcgcggc	300
aggcgacccg	ggcggggggc	gggctcccgg	agagcccagc	aggccaaagg	ctttgtgtct	360
tccacagagc	gtttccgtgg	gacttgtggc	cctcctggcg	tccaggaacc	ttcttcgccc	420
tccactgcac	tgggtcctgc	tggcactagc	tctggtgaac	ctgctcttgt	ccgttgccctg	480
ctccctgggc	ctccttcttg	ctgtgtcact	cactgtggcc	aacgggtggc	gccgccttat	540
tgctgactgc	caccaggac	tgctggatcc	tctggtacca	ctggatgagg	ggccgggaca	600
tactgactgc	ccctttgacc	ccacaagaat	ctatgataca	gccttggtc	tctggatccc	660
ttctttgctc	atgtctgcag	gggaggctgc	tctatctggt	tactgctgtg	tggctgcact	720
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tcagtcctaa	agggtttttt	ttcccactaa	gcaagggggc	ctgacctcgg	gatgagataa	960
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<210> 4
<211> 1332
<212> DNA
<213> Homo sapiens

<400> 4

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caggcggctg	atgcgtgtgg	gcctcgcgct	gatcttggtg	ggccacgtga	acctgctgct	180
ggggggccgtg	ctgcatggca	ccgtcctgcg	gcacgtggcc	aatccccgcg	gcgctgtcac	240
gccggagtac	accgtagcca	atgtcatctc	tgtcggctcg	gggctgctga	gcgtttccgt	300
gggacttgtg	gccctcctgg	cgtccaggaa	ccttcttcgc	cctccactgc	actgggtcct	360
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actgctggat	cctctggtac	cactggatga	ggggccggga	catactgact	gcccttttga	540
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ccacagagac tggctgtgtt gaaaagatgc tgaccggccg ggtgcggagg ctcacacctg	780
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ggtgggcgcc tgtaatccca gctacttgga aggctgaggc aggagaatcg cttgaacccg	960
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tcttttcttc ta	1332

<210> 5
 <211> 871
 <212> DNA
 <213> Homo sapiens

<400> 5

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caggcggctg atgcgtgtgg gcctcgcgct gatcttggtg ggccacgtga acctgctgct	180
gggggcccgtg ctgcatggca ccgtcctgcg gcacgtggcc aatccccgcg gcgctgtcac	240
gccggagtac accgtagcca atgtcatctc tgtcggctcg gggctgctga gcgtttccgt	300
gggacttgtg gccctcctgg cgtccaggaa ctttcttcgc cctccactgc actgggtcct	360
gctggcacta gctctggtga acctgctctt gtccgttgcc tgctccctgg gcctccttct	420
tgctgtgtca ctactgtgg ccaacgggtg ccgccgcctt attgctgact gccaccaggg	480
actgctggat cctctggtac cactggatga ggggccggga catactgact gcccctttga	540
ccccacaaga atctatgata cagccttggc tctctggatc ctttctttgc tcatgtctgc	600
aggggaggct gctctatctg gttactgctg tgtggctgca ctactctac gtggagttgg	660
gccctgcagg aaggacggac ttcaggggca ggtagtagct ggggtgtgacg caagagtga	720
acagaaagcc tggcagccac ggtttcctgg gattaaagtc aaagcattat gaatatggca	780
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<210> 6
 <211> 709
 <212> DNA
 <213> Homo sapiens

<400> 6

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caggcggctg atgcgtgtgg gcctcgcgct gatcttggtg ggccacgtga acctgctgct 180
ggggggccgtg ctgcatggca ccgtcctgcg gcacgtggcc aatccccgcg gcgctgtcac 240
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gggacttggt gccctcctgg cgtccaggaa ctttcttcgc cctccactgg atacagcctt 360
ggctctctgg atcccttctt tgctcatgtc tgcaggggag gctgctctat ctggttactg 420
ctgtgtggct gcactcactc tacgtggagt tgggccctgc aggaaggacg gacttcaggg 480
gcagctagag gaaatgacag agcttgaatc tcctaaatgt aaaaggcagg aaaatgagca 540
gctactggat caaaatcaag aaatccgggc atcacagaga agttggggtt aggacagcag 600
gtgctgttcc gagactcagt cctaaagggt ttttttccc actaagcaag gggccctgac 660
ctcgggatga gataacaaat tgtaataaag taacttctct tttcttcta 709

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<210> 7
<211> 240
<212> PRT
<213> Homo sapiens

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<400> 7

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

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Gly Val Gly Pro Cys Arg Lys Asp Gly Leu Gln Gly Gln Leu Glu Glu
195 200 205
Met Thr Glu Leu Glu Ser Pro Lys Cys Lys Arg Gln Glu Asn Glu Gln
210 215 220
Leu Leu Asp Gln Asn Gln Glu Ile Arg Ala Ser Gln Arg Ser Trp Val
225 230 235 240

<210> 8
<211> 240
<212> PRT
<213> Homo sapiens

<400> 8

Met Arg Arg Cys Ser Leu Cys Ala Phe Asp Ala Ala Arg Gly Pro Arg
1 5 10 15
Arg Leu Met Arg Val Gly Leu Ala Leu Ile Leu Val Gly His Val Asn
20 25 30
Leu Leu Leu Gly Ala Val Leu His Gly Thr Val Leu Arg His Val Ala
35 40 45
Asn Pro Arg Gly Ala Val Thr Pro Glu Tyr Thr Val Ala Asn Val Ile
50 55 60
Ser Val Gly Ser Gly Leu Leu Ser Val Ser Val Gly Leu Val Thr Leu
65 70 75 80
Leu Ala Ser Arg Asn Leu Leu Arg Pro Pro Leu His Trp Val Leu Leu
85 90 95
Ala Leu Ala Leu Val Asn Leu Leu Leu Ser Val Ala Cys Ser Leu Gly
100 105 110
Leu Leu Leu Ala Val Ser Leu Thr Val Ala Asn Gly Gly Arg Arg Leu
115 120 125
Ile Ala Asp Cys His Pro Gly Leu Leu Asp Pro Leu Val Pro Leu Asp
130 135 140
Glu Gly Pro Gly His Thr Asp Cys Pro Phe Asp Pro Thr Arg Ile Tyr
145 150 155 160
Asp Thr Ala Leu Ala Leu Trp Ile Pro Ser Leu Leu Met Ser Ala Gly
165 170 175
Glu Ala Ala Leu Ser Gly Tyr Cys Cys Val Ala Ala Leu Thr Leu Arg
180 185 190
Gly Val Gly Pro Cys Arg Lys Asp Gly Leu Gln Gly Gln Leu Glu Glu
195 200 205
Met Thr Glu Leu Glu Ser Pro Lys Cys Lys Arg Gln Glu Asn Glu Gln
210 215 220
Leu Leu Asp Gln Asn Gln Glu Ile Arg Ala Ser Gln Arg Ser Trp Val
225 230 235 240

<210> 9
<211> 48
<212> DNA
<213> Artificial

<220>

<223> Synthetic polynucleotide

<400> 9

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48

<210> 10

<211> 266

<212> PRT

<213> Homo sapiens

<400> 10

Met Arg Arg Cys Ser Leu Cys Ala Phe Asp Ala Ala Arg Gly Pro Arg
1 5 10 15
Arg Leu Met Arg Val Gly Leu Ala Leu Ile Leu Val Gly His Val Asn
20 25 30
Leu Leu Leu Gly Ala Val Leu His Gly Thr Val Leu Arg His Val Ala
35 40 45
Asn Pro Arg Gly Ala Val Thr Pro Glu Tyr Thr Val Ala Asn Val Ile
50 55 60
Ser Val Gly Ser Gly Leu Leu Val Ser Ala Ala Gly Asp Pro Gly Gly
65 70 75 80
Gly Arg Ala Pro Gly Glu Pro Ser Arg Pro Lys Ala Leu Cys Leu Pro
85 90 95
Gln Ser Val Ser Val Gly Leu Val Ala Leu Leu Ala Ser Arg Asn Leu
100 105 110
Leu Arg Pro Pro Leu His Trp Val Leu Leu Ala Leu Ala Leu Val Asn
115 120 125
Leu Leu Leu Ser Val Ala Cys Ser Leu Gly Leu Leu Leu Ala Val Ser
130 135 140
Leu Thr Val Ala Asn Gly Gly Arg Arg Leu Ile Ala Asp Cys His Pro
145 150 155 160
Gly Leu Leu Asp Pro Leu Val Pro Leu Asp Glu Gly Pro Gly His Thr
165 170 175
Asp Cys Pro Phe Asp Pro Thr Arg Ile Tyr Asp Thr Ala Leu Ala Leu
180 185 190
Trp Ile Pro Ser Leu Leu Met Ser Ala Gly Glu Ala Ala Leu Ser Gly
195 200 205
Tyr Cys Cys Val Ala Ala Leu Thr Leu Arg Gly Val Gly Pro Cys Arg
210 215 220
Lys Asp Gly Leu Gln Gly Gln Leu Glu Glu Met Thr Glu Leu Glu Ser
225 230 235 240
Pro Lys Cys Lys Arg Gln Glu Asn Glu Gln Leu Leu Asp Gln Asn Gln
245 250 255
Glu Ile Arg Ala Ser Gln Arg Ser Trp Val
260 265

<210> 11

<211> 221

<212> PRT

<213> Homo sapiens

<400> 11

Met Arg Arg Cys Ser Leu Cys Ala Phe Asp Ala Ala Arg Gly Pro Arg
1 5 10 15
Arg Leu Met Arg Val Gly Leu Ala Leu Ile Leu Val Gly His Val Asn
20 25 30
Leu Leu Leu Gly Ala Val Leu His Gly Thr Val Leu Arg His Val Ala
35 40 45
Asn Pro Arg Gly Ala Val Thr Pro Glu Tyr Thr Val Ala Asn Val Ile
50 55 60
Ser Val Gly Ser Gly Leu Leu Ser Val Ser Val Gly Leu Val Ala Leu
65 70 75 80
Leu Ala Ser Arg Asn Leu Leu Arg Pro Pro Leu His Trp Val Leu Leu
85 90 95
Ala Leu Ala Leu Val Asn Leu Leu Leu Ser Val Ala Cys Ser Leu Gly
100 105 110
Leu Leu Leu Ala Val Ser Leu Thr Val Ala Asn Gly Gly Arg Arg Leu
115 120 125
Ile Ala Asp Cys His Pro Gly Leu Leu Asp Pro Leu Val Pro Leu Asp
130 135 140
Glu Gly Pro Gly His Thr Asp Cys Pro Phe Asp Pro Thr Arg Ile Tyr
145 150 155 160
Asp Thr Ala Leu Ala Leu Trp Ile Pro Ser Leu Leu Met Ser Ala Gly
165 170 175
Glu Ala Ala Leu Ser Gly Tyr Cys Cys Val Ala Ala Leu Thr Leu Arg
180 185 190
Gly Val Gly Pro Cys Arg Lys Asp Gly Leu Gln Gly Gln Val Arg Lys
195 200 205
Ala Asn Arg Lys Gly Ser Phe His Arg Asp Trp Leu Cys
210 215 220

<210> 12

<211> 231

<212> PRT

<213> Homo sapiens

<400> 12

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

Leu Ala Ser Arg Asn Leu Leu Arg Pro Pro Leu His Trp Val Leu Leu
 85 90 95
 Ala Leu Ala Leu Val Asn Leu Leu Leu Ser Val Ala Cys Ser Leu Gly
 100 105 110
 Leu Leu Leu Ala Val Ser Leu Thr Val Ala Asn Gly Gly Arg Arg Leu
 115 120 125
 Ile Ala Asp Cys His Pro Gly Leu Leu Asp Pro Leu Val Pro Leu Asp
 130 135 140
 Glu Gly Pro Gly His Thr Asp Cys Pro Phe Asp Pro Thr Arg Ile Tyr
 145 150 155 160
 Asp Thr Ala Leu Ala Leu Trp Ile Pro Ser Leu Leu Met Ser Ala Gly
 165 170 175
 Glu Ala Ala Leu Ser Gly Tyr Cys Cys Val Ala Ala Leu Thr Leu Arg
 180 185 190
 Gly Val Gly Pro Cys Arg Lys Asp Gly Leu Gln Gly Gln Val Val Ala
 195 200 205
 Gly Cys Asp Ala Arg Val Lys Gln Lys Ala Trp Gln Pro Arg Phe Pro
 210 215 220
 Gly Ile Lys Val Lys Ala Leu
 225 230

<210> 13
 <211> 171
 <212> PRT
 <213> Homo sapiens

<400> 13

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

<210> 14
 <211> 1252
 <212> DNA
 <213> Homo sapiens

<400> 14

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tgatttagct tatggaagag gaaccagaaa tttgtccttg aataatgttt cccgacaacg      180
aagaggcaga aggatctggg cctgtgcgcg acgccccggg ggacgaggct catggagaag      240
tttcgggcgg tgctggacct gcacgtcaag caccacagcg ccttgggcta cggcctggtg      300
accctgctga cggcggggcgg ggagcgcacg ttctccgccg tggcattcca gtgcccgtgc      360
agcgccgcct ggaacctgcc ctacggcctg gtcttcttgc tggtgccggc gctcgcgctc      420
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gcggccgccg cgctcgcgcc cctcacctgg gtggccgtgg cgctgctcgg gggcgcttt      600
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caggacctcc tgaaggatct gaaggctcag tcgcaggtgt tgggctggat cttgatagca      780
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tttctgcagc tgaaattctg gaaaatctat ttggaacagg agcagcagat ccttaaaagt      900
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tcgcatccaa aagaatataa cactccaagc atgaaagagt ggcagcaaatt tcatcactg     1020
tatactttca atccgaaggg ccagtactac agcatgttgc acaaatatgt caacagaaaa     1080
gagaagactc acagtatcag gtctactgaa ggagatacgg tgattcctgt tcttggcttt     1140
gtagattcat ctggtataaa cagcactcct gagttatgac cttttgaatg agtagaaaaa     1200
aaaattgttt tgaattattg ctttattaaa aaataaacat tggatTTTTT tg              1252

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<210> 15
 <211> 315
 <212> PRT
 <213> Homo sapiens

<400> 15

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

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Leu Pro Tyr Gly Leu Val Phe Leu Leu Val Pro Ala Leu Ala Leu Phe
 50 55 60
 Leu Leu Gly Tyr Val Leu Ser Ala Arg Thr Trp Arg Leu Leu Thr Gly
 65 70 75 80
 Cys Cys Ser Ser Ala Arg Ala Ser Cys Gly Ser Ala Leu Arg Gly Ser
 85 90 95
 Leu Val Cys Thr Gln Ile Ser Ala Ala Ala Leu Ala Pro Leu Thr
 100 105 110
 Trp Val Ala Val Ala Leu Leu Gly Gly Ala Phe Tyr Glu Cys Ala Ala
 115 120 125
 Thr Gly Ser Ala Ala Phe Ala Gln Arg Leu Cys Leu Gly Arg Asn Arg
 130 135 140
 Ser Cys Ala Ala Glu Leu Pro Leu Val Pro Cys Asn Gln Ala Lys Ala
 145 150 155 160
 Ser Asp Val Gln Asp Leu Leu Lys Asp Leu Lys Ala Gln Ser Gln Val
 165 170 175
 Leu Gly Trp Ile Leu Ile Ala Val Val Ile Ile Ile Leu Leu Ile Phe
 180 185 190
 Thr Ser Val Thr Arg Cys Leu Ser Pro Val Ser Phe Leu Gln Leu Lys
 195 200 205
 Phe Trp Lys Ile Tyr Leu Glu Gln Glu Gln Gln Ile Leu Lys Ser Lys
 210 215 220
 Ala Thr Glu His Ala Thr Glu Leu Ala Lys Glu Asn Ile Lys Cys Phe
 225 230 235 240
 Phe Glu Gly Ser His Pro Lys Glu Tyr Asn Thr Pro Ser Met Lys Glu
 245 250 255
 Trp Gln Gln Ile Ser Ser Leu Tyr Thr Phe Asn Pro Lys Gly Gln Tyr
 260 265 270
 Tyr Ser Met Leu His Lys Tyr Val Asn Arg Lys Glu Lys Thr His Ser
 275 280 285
 Ile Arg Ser Thr Glu Gly Asp Thr Val Ile Pro Val Leu Gly Phe Val
 290 295 300
 Asp Ser Ser Gly Ile Asn Ser Thr Pro Glu Leu
 305 310 315

<210> 16
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 16

Met Phe Pro Val Leu Gly Trp Ile Leu Ile Ala Val Val Ile Ile Ile
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 20 25 30
 Leu Gln Leu Lys Phe Trp Lys Ile Tyr Leu Glu Gln Glu Gln Gln Ile
 35 40 45
 Leu Lys Ser Lys Ala Thr Glu His Ala Thr Glu Leu Ala Lys Glu Asn
 Page 10

50 55 60
 Ile Lys Cys Phe Phe Glu Gly Ser His Pro Lys Glu Tyr Asn Thr Pro
 65 70 75 80
 Ser Met Lys Glu Trp Gln Gln Ile Ser Ser Leu Tyr Thr Phe Asn Pro
 85 90 95
 Lys Gly Gln Tyr Tyr Ser Met Leu His Lys Tyr Val Asn Arg Lys Glu
 100 105 110
 Lys Thr His Ser Ile Arg Ser Thr Glu Gly Asp Thr Val Ile Pro Val
 115 120 125
 Leu Gly Phe Val Asp Ser Ser Gly Ile Asn Ser Thr Pro Glu Leu
 130 135 140

<210> 17
 <211> 158
 <212> PRT
 <213> Homo sapiens

<400> 17

Arg Trp Gly Arg Leu Gly Gly Ala Glu Arg Pro Ser Phe Leu Arg Ala
 1 5 10 15
 Ala Gly Val Leu Gly Trp Ile Leu Ile Ala Val Val Ile Ile Ile Leu
 20 25 30
 Leu Ile Phe Thr Ser Val Thr Arg Cys Leu Ser Pro Val Ser Phe Leu
 35 40 45
 Gln Leu Lys Phe Trp Lys Ile Tyr Leu Glu Gln Glu Gln Gln Ile Leu
 50 55 60
 Lys Ser Lys Ala Thr Glu His Ala Thr Glu Leu Ala Lys Glu Asn Ile
 65 70 75 80
 Lys Cys Phe Phe Glu Gly Ser His Pro Lys Glu Tyr Asn Thr Pro Ser
 85 90 95
 Met Lys Glu Trp Gln Gln Ile Ser Ser Leu Tyr Thr Phe Asn Pro Lys
 100 105 110
 Gly Gln Tyr Tyr Ser Met Leu His Lys Tyr Val Asn Arg Lys Glu Lys
 115 120 125
 Thr His Ser Ile Arg Ser Thr Glu Gly Asp Thr Val Ile Pro Val Leu
 130 135 140
 Gly Phe Val Asp Ser Ser Gly Ile Asn Ser Thr Pro Glu Leu
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<210> 18
 <211> 315
 <212> PRT
 <213> Homo sapiens

<400> 18

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 Leu Pro₅₀ Tyr Gly Leu Val Phe₅₅ Leu Leu Val Pro Ala₆₀ Leu Ala Leu Phe
 Leu₆₅ Leu Gly Tyr Val Leu₇₀ Ser Ala Arg Thr Trp₇₅ Arg Leu Leu Thr Gly₈₀
 Cys Cys Ser Ser Ala₈₅ Arg Ala Ser Cys Gly₉₀ Ser Ala Leu Arg Gly₉₅ Ser
 Leu Val Cys Ala₁₀₀ Gln Ile Ser Ala Ala₁₀₅ Ala Ala Leu Ala Pro₁₁₀ Leu Thr
 Trp Val Ala₁₁₅ Val Ala Leu Leu Gly₁₂₀ Gly Ala Phe Tyr Glu₁₂₅ Cys Ala Ala
 Thr Gly₁₃₀ Ser Ala Ala Phe Ala₁₃₅ Gln Arg Leu Cys Leu₁₄₀ Gly Arg Asn Arg
 Ser₁₄₅ Cys Ala Ala Glu Leu₁₅₀ Pro Leu Val Pro Cys₁₅₅ Asn Gln Ala Lys Ala₁₆₀
 Ser Asp Val Gln Asp₁₆₅ Leu Leu Lys Asp Leu₁₇₀ Lys Ala Gln Ser Gln₁₇₅ Val
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 Phe Glu Gly Ser His₂₄₅ Pro Lys Glu Tyr Asn₂₅₀ Thr Pro Ser Met Lys₂₅₅ Glu
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<400> 19

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Lys Pro His Thr Lys Leu Asp Leu Gly Leu Ser Leu Gln Thr Ala Gly		
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Pro Glu Glu Val Ser Pro Asp Cys Gln Gly Val Asn Thr Gly Met Ala		
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Ala Glu Val Pro Lys Val Ser Pro Leu Gln Gln Ser Tyr Ser Cys Leu		
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Asn Pro Gln Leu Glu Ser Asn Glu Gly Gln Ala Val Asn Ser Lys Arg		
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<400> 22

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<210> 25
 <211> 165
 <212> PRT
 <213> Homo sapiens

<400> 25

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 Val Leu Leu Ala Phe Ile Val Thr Ala Cys Val Leu Cys Tyr Leu Phe
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 Ile Ser Ser Lys Pro His Thr Lys Leu Asp Leu Gly Leu Ser Leu Gln
 65 70 75 80
 Thr Ala Gly Pro Glu Glu Val Ser Pro Asp Cys Gln Gly Val Asn Thr
 85 90 95
 Gly Met Ala Ala Glu Val Pro Lys Val Ser Pro Leu Gln Gln Ser Tyr
 100 105 110
 Ser Cys Leu Asn Pro Gln Leu Glu Ser Asn Glu Gly Gln Ala Val Asn
 115 120 125
 Ser Lys Arg Leu Leu His His Cys Phe Met Ala Thr Val Thr Thr Ser
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 Cys Gly Pro Val Pro
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<210> 26
 <211> 3454

<212> DNA
<213> Homo sapiens

<400> 26

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 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic polynucleotide

<400> 27

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<210> 28

<211> 2880
 <212> DNA
 <213> Homo sapiens

<400> 28

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<210> 29
 <211> 349
 <212> PRT
 <213> Homo sapiens

<400> 29

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			20					25					30		
Thr	Val	Thr	Leu	Leu	Ile	Val	Ser	Val	Leu	Ile	Leu	Thr	Val	Gly	Leu
		35					40					45			
Ala	Ala	Thr	Thr	Arg	Thr	Gln	Asn	Val	Thr	Val	Gly	Gly	Tyr	Tyr	Pro
	50					55					60				
Gly	Val	Ile	Leu	Gly	Phe	Gly	Ser	Phe	Leu	Gly	Ile	Ile	Gly	Ser	Asn
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Leu	Ile	Glu	Asn	Lys	Arg	Gln	Met	Leu	Val	Ala	Ser	Ile	Val	Phe	Ile
			85					90						95	
Ser	Phe	Gly	Val	Ile	Ala	Ala	Phe	Cys	Cys	Ala	Ile	Val	Asp	Gly	Val
			100					105					110		
Phe	Ala	Ala	Arg	His	Ile	Asp	Leu	Lys	Pro	Leu	Tyr	Ala	Asn	Arg	Cys
	115						120					125			
His	Tyr	Val	Pro	Lys	Thr	Ser	Gln	Lys	Glu	Ala	Glu	Glu	Val	Ile	Ser
	130					135					140				
Ser	Ser	Thr	Lys	Asn	Ser	Pro	Ser	Thr	Arg	Val	Met	Arg	Asn	Leu	Thr

145					150					155					160
Gln	Ala	Ala	Arg	Glu	Val	Asn	Cys	Pro	His	Leu	Ser	Arg	Glu	Phe	Cys
				165					170					175	
Thr	Pro	Arg	Ile	Arg	Gly	Asn	Thr	Cys	Phe	Cys	Cys	Asp	Leu	Tyr	Asn
			180					185					190		
Cys	Gly	Asn	Arg	Val	Glu	Ile	Thr	Gly	Gly	Tyr	Tyr	Glu	Tyr	Ile	Asp
		195					200					205			
Val	Ser	Ser	Cys	Gln	Asp	Ile	Ile	His	Leu	Tyr	His	Leu	Leu	Trp	Ser
	210					215					220				
Ala	Thr	Ile	Leu	Asn	Ile	Val	Gly	Leu	Phe	Leu	Gly	Ile	Ile	Thr	Ala
225					230					235					240
Ala	Val	Leu	Gly	Gly	Phe	Lys	Asp	Met	Asn	Pro	Thr	Leu	Pro	Ala	Leu
				245					250					255	
Asn	Cys	Ser	Val	Glu	Asn	Thr	His	Pro	Thr	Val	Ser	Tyr	Tyr	Ala	His
			260					265					270		
Pro	Gln	Val	Ala	Ser	Tyr	Asn	Thr	Tyr	Tyr	His	Ser	Pro	Pro	His	Leu
		275					280					285			
Pro	Pro	Tyr	Ser	Ala	Tyr	Asp	Phe	Gln	His	Ser	Gly	Val	Phe	Pro	Ser
	290					295					300				
Ser	Pro	Pro	Ser	Gly	Leu	Ser	Asp	Glu	Pro	Gln	Ser	Ala	Ser	Pro	Ser
305					310					315					320
Pro	Ser	Tyr	Met	Trp	Ser	Ser	Ser	Ala	Pro	Pro	Arg	Tyr	Ser	Pro	Pro
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Tyr	Tyr	Pro	Pro	Phe	Glu	Lys	Pro	Gln	Pro	Tyr	Ser	Pro			
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<210> 30
 <211> 349
 <212> PRT
 <213> Homo sapiens

<400> 30

Met	His	Gln	Ser	Leu	Thr	Gln	Gln	Arg	Ser	Ser	Asp	Met	Ser	Leu	Pro
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Asp	Ser	Met	Gly	Ala	Phe	Asn	Arg	Arg	Lys	Arg	Asn	Ser	Ile	Tyr	Val
			20					25					30		
Thr	Val	Thr	Leu	Leu	Ile	Val	Ser	Val	Leu	Ile	Leu	Thr	Val	Gly	Leu
		35					40					45			
Ala	Ala	Thr	Thr	Arg	Thr	Gln	Asn	Val	Thr	Val	Gly	Gly	Tyr	Tyr	Pro
	50					55					60				
Gly	Val	Ile	Leu	Gly	Phe	Gly	Ser	Phe	Leu	Gly	Ile	Ile	Gly	Ser	Asn
65					70					75					80
Leu	Ile	Glu	Asn	Lys	Arg	Gln	Met	Leu	Val	Ala	Ser	Ile	Val	Phe	Ile
				85					90					95	
Ser	Phe	Gly	Val	Ile	Ala	Ala	Phe	Cys	Cys	Ala	Ile	Val	Asp	Gly	Val
			100					105					110		
Phe	Ala	Ala	Arg	His	Ile	Asp	Leu	Lys	Pro	Leu	Tyr	Ala	Asn	Arg	Cys
		115					120					125			

His Tyr Val Pro Lys Thr Ser Gln Lys Glu Ala Glu Glu Val Ile Ser
 130 135 140
 Ser Ser Thr Lys Asn Ser Pro Ser Thr Arg Val Met Arg Asn Leu Thr
 145 150 155 160
 Gln Ala Ala Arg Glu Val Asn Cys Pro His Leu Ser Arg Glu Phe Cys
 165 170 175
 Thr Pro Arg Ile Arg Gly Asn Thr Cys Phe Cys Cys Asp Leu Tyr Asn
 180 185 190
 Cys Gly Asn Arg Val Glu Ile Thr Gly Gly Tyr Tyr Glu Tyr Ile Asp
 195 200 205
 Val Ser Ser Cys Gln Asp Ile Ile His Leu Tyr His Leu Leu Trp Ser
 210 215 220
 Ala Thr Ile Leu Asn Ile Val Gly Leu Phe Leu Gly Ile Ile Thr Ala
 225 230 235 240
 Ala Val Leu Gly Gly Phe Lys Asp Met Asn Pro Thr Leu Pro Ala Leu
 245 250 255
 Asn Cys Ser Val Glu Asn Thr His Pro Thr Val Ser Tyr Tyr Ala His
 260 265 270
 Pro Gln Val Ala Ser Tyr Asn Thr Tyr Tyr His Ser Pro Pro His Leu
 275 280 285
 Pro Pro Tyr Ser Ala Tyr Asp Phe Gln His Ser Gly Val Phe Pro Ser
 290 295 300
 Ser Pro Pro Ser Gly Leu Ser Asp Glu Pro Gln Ser Ala Ser Pro Ser
 305 310 315 320
 Pro Ser Tyr Met Trp Ser Ser Ser Ala Pro Pro Arg Tyr Ser Pro Pro
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 Tyr Tyr Pro Pro Phe Glu Lys Pro Pro Pro Tyr Ser Pro
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<210> 31
 <211> 349
 <212> PRT
 <213> Homo sapiens

<400> 31

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

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

<210> 32
 <211> 185
 <212> PRT
 <213> Homo sapiens

<400> 32

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 35 40 45
 Gln Asp Ile Ile His Leu Tyr His Leu Leu Trp Ser Ala Thr Ile Leu
 50 55 60
 Asn Ile Val Gly Leu Phe Leu Gly Ile Ile Thr Ala Ala Val Leu Gly

65					70					75				80	
Gly	Phe	Lys	Asp	Met	Asn	Pro	Thr	Leu	Pro	Ala	Leu	Asn	Cys	Ser	Val
				85					90					95	
Glu	Asn	Thr	His	Pro	Thr	Val	Ser	Tyr	Tyr	Ala	His	Pro	Gln	Val	Ala
			100					105					110		
Ser	Tyr	Asn	Thr	Tyr	Tyr	His	Ser	Pro	Pro	His	Leu	Pro	Pro	Tyr	Ser
		115					120					125			
Ala	Tyr	Asp	Phe	Gln	His	Ser	Gly	Val	Phe	Pro	Ser	Ser	Pro	Pro	Ser
	130					135					140				
Gly	Leu	Ser	Asp	Glu	Pro	Gln	Ser	Ala	Ser	Pro	Ser	Pro	Ser	Tyr	Met
145					150					155					160
Trp	Ser	Ser	Ser	Ala	Pro	Pro	Arg	Tyr	Ser	Pro	Pro	Tyr	Tyr	Pro	Pro
				165					170					175	
Phe	Glu	Lys	Pro	Pro	Pro	Tyr	Ser	Pro							
			180					185							

<210> 33
 <211> 325
 <212> PRT
 <213> Homo sapiens

<400> 33

Met	His	Gln	Ser	Leu	Thr	Gln	Gln	Arg	Ser	Ser	Asp	Met	Ser	Leu	Pro
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Asp	Ser	Met	Gly	Ala	Phe	Asn	Arg	Arg	Lys	Arg	Asn	Ser	Ile	Tyr	Val
			20					25					30		
Thr	Val	Thr	Leu	Leu	Ile	Val	Ser	Val	Leu	Ile	Leu	Thr	Val	Gly	Leu
		35					40					45			
Ala	Ala	Thr	Thr	Arg	Thr	Gln	Asn	Val	Thr	Val	Gly	Gly	Tyr	Tyr	Pro
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Leu	Ile	Glu	Asn	Lys	Arg	Gln	Met	Leu	Val	Ala	Ser	Ile	Val	Phe	Ile
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Ser	Phe	Gly	Val	Ile	Ala	Ala	Phe	Cys	Cys	Ala	Ile	Val	Asp	Gly	Val
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Phe	Ala	Ala	Arg	His	Ile	Asp	Leu	Lys	Pro	Leu	Tyr	Ala	Asn	Arg	Cys
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Pro	His	Leu	Ser	Arg	Glu	Phe	Cys	Thr	Pro	Arg	Ile	Arg	Gly	Asn	Thr
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Cys	Phe	Cys	Cys	Asp	Leu	Tyr	Asn	Cys	Gly	Asn	Arg	Val	Glu	Ile	Thr
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Gly	Gly	Tyr	Tyr	Glu	Tyr	Ile	Asp	Val	Ser	Ser	Cys	Gln	Asp	Ile	Ile
			180					185					190		
His	Leu	Tyr	His	Leu	Leu	Trp	Ser	Ala	Thr	Ile	Leu	Asn	Ile	Val	Gly
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 Pro Thr Val Ser Tyr Tyr Ala His Pro Gln Val Ala Ser Tyr Asn Thr
 245 250 255
 Tyr Tyr His Ser Pro Pro His Leu Pro Pro Tyr Ser Ala Tyr Asp Phe
 260 265 270
 Gln His Ser Gly Val Phe Pro Ser Ser Pro Pro Ser Gly Leu Ser Asp
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 Pro Pro Tyr Ser Pro
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 Ala Ala Thr Thr Arg Thr Gln Asn Val Thr Val Gly Gly Tyr Tyr Pro
 50 55 60
 Gly Val Ile Leu Gly Phe Gly Ser Phe Leu Gly Ile Ile Gly Ser Asn
 65 70 75 80
 Leu Ile Glu Asn Lys Arg Gln Met Leu Val Ala Ser Ile Val Phe Ile
 85 90 95
 Ser Phe Gly Val Ile Ala Ala Phe Cys Cys Ala Ile Val Asp Gly Val
 100 105 110
 Phe Ala Ala Arg His Ile Asp Leu Lys Pro Leu Tyr Ala Asn Arg Cys
 115 120 125

His Tyr Val Pro Lys Thr Ser Gln Lys Glu Ala Glu Glu Asn Pro Thr
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 Leu Pro Ala Leu Asn Cys Ser Val Glu Asn Thr His Pro Thr Val Ser
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 Tyr Tyr Ala His Pro Gln Val Ala Ser Tyr Asn Thr Tyr Tyr His Ser
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 Pro Pro His Leu Pro Pro Tyr Ser Ala Tyr Asp Phe Gln His Ser Gly
 180 185 190
 Val Phe Pro Ser Ser Pro Pro Ser Gly Leu Ser Asp Glu Pro Gln Ser
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<211> 328

<212> PRT

<213> Homo sapiens

<400> 36

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 Ala Ala Thr Thr Arg Thr Gln Asn Val Thr Val Gly Gly Tyr Tyr Pro
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 Gly Val Ile Leu Val Ala Ser Ile Val Phe Ile Ser Phe Gly Val Ile
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 Ala Ala Phe Cys Cys Ala Ile Val Asp Gly Val Phe Ala Ala Arg His
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 Ile Asp Leu Lys Pro Leu Tyr Ala Asn Arg Cys His Tyr Val Pro Lys
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 Thr Ser Gln Lys Glu Ala Glu Glu Val Ile Ser Ser Ser Thr Lys Asn
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 Ser Pro Ser Thr Arg Val Met Arg Asn Leu Thr Gln Ala Ala Arg Glu
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 Val Asn Cys Pro His Leu Ser Arg Glu Phe Cys Thr Pro Arg Ile Arg
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 Gly Asn Thr Cys Phe Cys Cys Asp Leu Tyr Asn Cys Gly Asn Arg Val
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 Glu Ile Thr Gly Gly Tyr Tyr Glu Tyr Ile Asp Val Ser Ser Cys Gln
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 Asp Ile Ile His Leu Tyr His Leu Leu Trp Ser Ala Thr Ile Leu Asn
 195 200 205

Ile Val Gly Leu Phe Leu Gly Ile Ile Thr Ala Ala Val Leu Gly Gly
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Phe Lys Asp Met Asn Pro Thr Leu Pro Ala Leu Asn Cys Ser Val Glu
225 230 235 240
Asn Thr His Pro Thr Val Ser Tyr Tyr Ala His Pro Gln Val Ala Ser
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Tyr Asn Thr Tyr Tyr His Ser Pro Pro His Leu Pro Pro Tyr Ser Ala
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Tyr Asp Phe Gln His Ser Gly Val Phe Pro Ser Ser Pro Pro Ser Gly
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Leu Ser Asp Glu Pro Gln Ser Ala Ser Pro Ser Pro Ser Tyr Met Trp
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tgctggtctg	acaggctcct	gcagaattac	atcacttcct	aaaaaacagg	cacacacctc	120
tccttcaagt	cagcaccgac	ccaaacaagc	aggaaacagg	aatgtttcac	gtttcagaga	180
ggctgcagcc	cggcgagca	tcctgagcgc	gcctctgccg	aggcgagcgg	acatgcaggc	240
tccccgcgca	gccctagtct	tcgccctggt	gatcgcgctc	gttcccgtcg	gccggggtaa	300
ttatgaggaa	ttagaaaact	caggagatac	aactgtggaa	tctgaaagac	caaataaagt	360
gactattcca	agcacatttg	ctgcagtgac	catcaaagaa	acattaaatg	caaataataa	420
ttctaccaac	tttgtccgg	atgaaaatca	gttagagttt	atactgatgg	tgттаatccc	480
attgatttta	ttggtcctct	tacttttatc	cgtggatttc	cttgcaacat	actataaaag	540
aaaaagaact	aaacaagaac	cttctagcca	aggatctcag	agtgcctttac	agacatgtaa	600
aatacaacta	tcatggaagg	tcataccagc	gttttgcttg	gaaagctccc	acagaaatgc	660
tttataggag	agcatggaca	cctgcacact	atgtcccctg	ggaagttaga	agcagacata	720

ctgtttctta ctgcacttgg gtagagcctg gtctgttata ctatactagg aaataa

776

<210> 42
 <211> 183
 <212> PRT
 <213> Homo sapiens

<400> 42

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

<210> 43
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 43

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

Glu Asp Thr Pro Ser Val Met Glu Ile Glu Met Glu Glu Leu Asp Lys
85 90 95

Trp Met Asn Ser Met Asn Arg Asn Ala Asp Phe Glu Cys Leu Pro Thr
100 105 110

Leu Lys Glu Glu Lys Glu Ser Asn His Asn Pro Ser Asp Ser Glu Ser
115 120 125

<210> 44

<211> 183

<212> PRT

<213> Homo sapiens

<400> 44

Met Gln Ala Pro Arg Ala Ala Leu Val Phe Ala Leu Val Ile Ala Leu
1 5 10 15

Val Pro Val Gly Arg Gly Asn Tyr Glu Glu Leu Glu Asn Ser Gly Asp
20 25 30

Thr Thr Val Glu Ser Glu Arg Pro Asn Lys Val Thr Ile Pro Ser Thr
35 40 45

Phe Ala Ala Val Thr Ile Lys Glu Thr Leu Asn Ala Asn Ile Asn Ser
50 55 60

Thr Asn Phe Ala Pro Asp Glu Asn Gln Leu Glu Phe Ile Leu Met Val
65 70 75 80

Leu Ile Pro Leu Ile Leu Leu Val Leu Leu Leu Phe Val Val Phe
85 90 95

Leu Ala Thr Tyr Tyr Lys Arg Lys Arg Thr Lys Gln Glu Pro Ser Ser
100 105 110

Gln Gly Ser Gln Ser Ala Leu Gln Thr Tyr Glu Leu Gly Ser Glu Asn
115 120 125

Val Lys Val Pro Ile Phe Glu Glu Asp Thr Pro Ser Val Met Glu Ile
130 135 140

Glu Met Glu Glu Leu Asp Lys Trp Met Asn Ser Met Asn Arg Asn Ala
145 150 155 160

Asp Phe Glu Cys Leu Pro Thr Leu Lys Glu Glu Lys Glu Ser Asn His
165 170 175

Asn Pro Ser Asp Ser Glu Ser
180

<210> 45

<211> 105

<212> PRT

<213> Homo sapiens

<400> 45

Met Val Leu Ile Pro Leu Ile Leu Leu Val Leu Leu Leu Leu Ser Val
1 5 10 15

Val Phe Leu Ala Thr Tyr Tyr Lys Arg Lys Arg Thr Lys Gln Glu Pro
20 25 30

Ser Ser Gln Gly Ser Gln Ser Ala Leu Gln Thr Tyr Glu Leu Gly Ser
35 40 45

Glu Asn Val Lys Val Pro Ile Phe Glu Glu Asp Thr Pro Ser Val Met
 50 55 60
 Glu Ile Glu Met Glu Glu Leu Asp Lys Trp Met Asn Ser Met Asn Arg
 65 70 75 80
 Asn Ala Asp Phe Glu Cys Leu Pro Thr Leu Lys Glu Glu Lys Glu Ser
 85 90 95
 Asn His Asn Pro Ser Asp Ser Glu Ser
 100 105

<210> 46
 <211> 144
 <212> PRT
 <213> Homo sapiens

<400> 46

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

<210> 47
 <211> 21
 <212> PRT
 <213>

<213> Artificial

<220>
 <223> Synthetic polypeptide

<400> 47

Thr Val Leu Arg His Val Ala Asn Pro Arg Gly Ala Val Thr Pro Glu
 1 5 10 15
 Tyr Thr Val Ala Asn
 20

<210> 48

<211> 48
<212> PRT
<213> Artificial

<220>
<223> Synthetic polypeptide

<400> 48

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

<210> 49
<211> 20
<212> PRT
<213> Artificial

<220>
<223> Synthetic polypeptide

<400> 49

Met Arg Arg Cys Ser Leu Cys Ala Phe Asp Ala Ala Arg Gly Pro Arg
1 5 10 15
Arg Leu Met Arg
20

<210> 50
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Synthetic polypeptide

<400> 50

Asp Pro Gly Gly Gly Arg Ala Pro Gly Glu Pro Ser Arg Pro Lys
1 5 10 15

<210> 51
<211> 57
<212> PRT
<213> Artificial

<220>
<223> Synthetic polypeptide

<400> 51

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

Ile Arg Ala Ser Gln Arg Ser Trp Val
50 55

<210> 52
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Synthetic polypeptide

<400> 52

Gln Cys Pro Cys Ser Ala Ala Trp Asn
1 5

<210> 53
<211> 51
<212> PRT
<213> Artificial

<220>
<223> Synthetic polypeptide

<400> 53

Glu Cys Ala Ala Thr Gly Ser Ala Ala Phe Ala Gln Arg Leu Cys Leu
1 5 10 15

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

Gln Ala Lys Ala Ser Asp Val Gln Asp Leu Leu Lys Asp Leu Lys Ala
35 40 45

Gln Ser Gln
50

<210> 54
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Synthetic polypeptide

<400> 54

Thr Thr Arg Thr Gln Asn Val Thr Val
1 5

<210> 55
<211> 116
<212> PRT
<213> Homo sapiens

<400> 55

Asp Gly Val Phe Ala Ala Arg His Ile Asp Leu Lys Pro Leu Tyr Ala
1 5 10 15

Asn Arg Cys His Tyr Val Pro Lys Thr Ser Gln Lys Glu Ala Glu Glu
20 25 30

Val Ile Ser Ser Ser Thr Lys Asn Ser Pro Ser Thr Arg Val Met Arg
Page 40

35 40 45
 Asn Leu Thr Gln Ala Ala Arg Glu Val Asn Cys Pro His Leu Ser Arg
 50 55 60
 Glu Phe Cys Thr Pro Arg Ile Arg Gly Asn Thr Cys Phe Cys Cys Asp
 65 70 75 80
 Leu Tyr Asn Cys Gly Asn Arg Val Glu Ile Thr Gly Gly Tyr Tyr Glu
 85 90 95
 Tyr Ile Asp Val Ser Ser Cys Gln Asp Ile Ile His Leu Tyr His Leu
 100 105 110
 Leu Trp Ser Ala
 115

<210> 56
 <211> 92
 <212> PRT
 <213> Homo sapiens

<400> 56

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

<210> 57
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 57

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

Pro Phe Glu Lys Pro Pro Pro Tyr Ser Pro
100 105

<210> 58
<211> 132
<212> PRT
<213> Homo sapiens

<400> 58

Asp Gly Val Phe Ala Ala Arg His Ile Asp Leu Lys Pro Leu Tyr Ala
1 5 10 15
Asn Arg Cys His Tyr Val Pro Lys Thr Ser Gln Lys Glu Ala Glu Glu
20 25 30
Asn Pro Thr Leu Pro Ala Leu Asn Cys Ser Val Glu Asn Thr His Pro
35 40 45
Thr Val Ser Tyr Tyr Ala His Pro Gln Val Ala Ser Tyr Asn Thr Tyr
50 55 60
Tyr His Ser Pro Pro His Leu Pro Pro Tyr Ser Ala Tyr Asp Phe Gln
65 70 75 80
His Ser Gly Val Phe Pro Ser Ser Pro Pro Ser Gly Leu Ser Asp Glu
85 90 95
Pro Gln Ser Ala Ser Pro Ser Pro Ser Tyr Met Trp Ser Ser Ser Ala
100 105 110
Pro Pro Arg Tyr Ser Pro Pro Tyr Tyr Pro Pro Phe Glu Lys Pro Pro
115 120 125
Pro Tyr Ser Pro
130

<210> 59
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Synthetic polypeptide

<400> 59

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

<210> 60
<211> 55
<212> PRT
<213> Homo sapiens

<400> 60

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

Phe Phe Pro Tyr Glu His Ser
50 55

<210> 61
<211> 100
<212> PRT
<213> Homo sapiens

<400> 61

Ser Ser Lys Pro His Thr Lys Leu Asp Leu Gly Leu Ser Leu Gln Thr
1 5 10 15
Ala Gly Pro Glu Glu Val Ser Pro Asp Cys Gln Gly Val Asn Thr Gly
20 25 30
Met Ala Ala Glu Val Pro Lys Val Ser Pro Leu Gln Gln Ser Tyr Ser
35 40 45
Cys Leu Asn Pro Gln Leu Glu Ser Asn Glu Gly Gln Ala Val Asn Ser
50 55 60
Lys Arg Leu Leu His His Cys Phe Met Ala Thr Val Thr Thr Ser Asp
65 70 75 80
Ile Pro Gly Ser Pro Glu Glu Ala Ser Val Pro Asn Pro Asp Leu Cys
85 90 95
Gly Pro Val Pro
100

<210> 62
<211> 71
<212> PRT
<213> Homo sapiens

<400> 62

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

<210> 63
<211> 51
<212> PRT
<213> Homo sapiens

<400> 63

Glu Glu Leu Glu Asn Ser Gly Asp Thr Thr Val Glu Ser Glu Arg Pro
1 5 10 15
Asn Lys Val Thr Ile Pro Ser Thr Phe Ala Ala Val Thr Ile Lys Glu
20 25 30

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

Gln Leu Glu
50

<210> 64
<211> 86
<212> PRT
<213> Homo sapiens

<400> 64

Ala Thr Tyr Tyr Lys Arg Lys Arg Thr Lys Gln Glu Pro Ser Ser Gln
1 5 10 15

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

Lys Val Pro Ile Phe Glu Glu Asp Thr Pro Ser Val Met Glu Ile Glu
35 40 45

Met Glu Glu Leu Asp Lys Trp Met Asn Ser Met Asn Arg Asn Ala Asp
50 55 60

Phe Glu Cys Leu Pro Thr Leu Lys Glu Glu Lys Glu Ser Asn His Asn
65 70 75 80

Pro Ser Asp Ser Glu Ser
85

<210> 65
<211> 21
<212> DNA
<213> Artificial

<220>
<223> Synthetic polynucleotide

<400> 65

aatttgtaa gtcggtgcag c

21

<210> 66
<211> 20
<212> DNA
<213> Artificial

<220>
<223> Synthetic polynucleotide

<400> 66

tcaccccttc atttttgcgt

20

<210> 67
<211> 106
<212> DNA
<213> Artificial

<220>
<223> Synthetic polynucleotide

<400> 67

aatttgtcaa gtcggtgcag ctggcaagac ctaaaggatt atatgctca ggcaggagaa 60
 gtgacttatg cagatgctca caagggacgc aaaaatgaag ggggtga 106

<210> 68
 <211> 21
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<220>
 <223> Synthetic polynucleotide

<400> 68

gctccaggcc ataaggactt c 21

<210> 69
 <211> 21
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic polynucleotide

<400> 69

cagcttcaaa ctctcccctg c 21

<210> 70
 <211> 103
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic polynucleotide

<400> 70

gctccaggcc ataaggactt cattccaaat atgattacag gagcagccca ggcggatgta 60

gctgttttag ttgtagatgc cagcagggga gagtttgaag ctg 103

<210> 71
 <211> 20
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 <213> Artificial

<220>
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<400> 71

ttccttgcca ggacctagag 20

<210> 72
 <211> 20
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic polynucleotide

<400> 72

cataaacctt tcgccttgac 20

<210> 73
<211> 128
<212> DNA
<213> Artificial

<220>
<223> Synthetic polynucleotide

<400> 73

ttccttgcca ggacctagag tttgttcagt tccacccac aggcataatat ggtgctggtt 60

gtctcattac ggaaggatgt cgtggagagg gaggcattct cattaacagt caaggcgaaa 120

ggtttatg 128

<210> 74
<211> 20
<212> DNA
<213> Artificial

<220>
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<400> 74

cagccagggtt atgccaacac 20

<210> 75
<211> 21
<212> DNA
<213> Artificial

<220>
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<400> 75

tcaaagcagg cgaacttcac c 20

<210> 76
<211> 140
<212> DNA
<213> Artificial

<220>
<223> Synthetic polynucleotide

<400> 76

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ctaaaagcat tctacaaggg ggttgctcct ctctggatga gacagatacc atacaccatg 120

atgaagttcg cctgctttga 140

<210> 77
<211> 20
<212> DNA
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<220>

<223> Synthetic polynucleotide
 <400> 77
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<210> 78
 <211> 21
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 <400> 78
 tttcttgctg ccagtctgga c 21

<210> 79
 <211> 122
 <212> DNA
 <213> Artificial
 <220>
 <223> Synthetic polynucleotide
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 tctgggaaaa tgggtgtgcac aggagccaag agtgaagaac agtccagact ggcagcaaga 120
 aa 122

<210> 80
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 <220>
 <223> Synthetic polynucleotide
 <400> 80
 atttgggtcg cggttcttg 19

<210> 81
 <211> 21
 <212> DNA
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 <223> Synthetic polynucleotide
 <400> 81
 tgccttgaca ttctcgatgg t 21

<210> 82
 <211> 133
 <212> DNA
 <213> Artificial
 <220>

<223> Synthetic polynucleotide
 <400> 82
 atttgggtcg cggttcttgt ttgtggatcg ctgtgatcgt cacttgacaa tgcagatctt 60
 cgtgaagact ctgactggta agaccatcac cctcgaggtt gagcccagtg acaccatcga 120
 gaatgtcaag gca 133

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 <220>
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 <400> 83
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 <210> 84
 <211> 22
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic polynucleotide
 <400> 84
 ccaccactgc atcaaattca tg 22

 <210> 85
 <211> 86
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic polynucleotide
 <400> 85
 tgggaacaag agggcatctg ctaaagtttc agattccatt tctgctcagt atccagtagt 60
 ggatcatgaa tttgatgcag tggtagg 86

 <210> 86
 <211> 21
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic polynucleotide
 <400> 86
 tgacactggc aaaacaatgc a 21

 <210> 87
 <211> 21
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic polynucleotide
 <400> 87
 ggtccttttc accagcaagc t 21

<210> 88
 <211> 94
 <212> DNA
 <213> Artificial
 <220>
 <223> Synthetic polynucleotide
 <400> 88
 tgacactggc aaaacaatgc agactttgct ttccttggtc aggcagtata atccaaagat 60
 ggtcaaggctc gcaagcttgc tggtgaaaag gacc 94

<210> 89
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 <212> DNA
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 <400> 89
 gaggccgtca ccaagaacat 20

<210> 90
 <211> 19
 <212> DNA
 <213> Artificial
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 <223> Synthetic polynucleotide
 <400> 90
 ggacagccgg tcagagctc 19

<210> 91
 <211> 111
 <212> DNA
 <213> Artificial
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 <400> 91
 gaggccgtca ccaagaacat tcacgagtcc tgcattgagcc agataggctg gaaccgcatc 60
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 <212> DNA
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<220>
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 <400> 92
 cccctttgac cccacaaga 19

<210> 93
 <211> 21
 <212> DNA
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 <223> Synthetic polynucleotide
 <400> 93
 cagccacaca gcagtaacca g 21

<210> 94
 <211> 107
 <212> DNA
 <213> Artificial
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 <400> 94
 cccctttgac cccacaagaa tctatgatac agccttggct ctctggatcc cttctttgct 60
 catgtctgca ggggaggctg ctctatctgg ttactgctgt gtggctg 107

<210> 95
 <211> 16
 <212> DNA
 <213> Artificial
 <220>
 <223> Synthetic polynucleotide
 <400> 95
 ggccaaggcg tcggac 16

<210> 96
 <211> 25
 <212> DNA
 <213> Artificial
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 <223> Synthetic polynucleotide
 <400> 96
 gaaaactaac tggagatagg catcg 25

<210> 97
 <211> 143
 <212> DNA
 <213> Artificial
 <220>

<223> Synthetic polynucleotide
 <400> 97
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 gggctggatc ttgatagcag ttgttatcat cattcttctg atttttacat ctgtcacccg 120
 atgcctatct ccagttagtt ttc 143

 <210> 98
 <211> 18
 <212> DNA
 <213> Artificial
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 <223> Synthetic polynucleotide
 <400> 98
 tcggacgtgc aggacctc 18

 <210> 99
 <211> 21
 <212> DNA
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 <220>
 <223> Synthetic polynucleotide
 <400> 99
 gagataggca tcgggtgaca g 21

 <210> 100
 <211> 121
 <212> DNA
 <213> Artificial
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 <223> Synthetic polynucleotide
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 ttgatagcag ttgttatcat cattcttctg atttttacat ctgtcacccg atgcctatct 120
 c 121

 <210> 101
 <211> 26
 <212> DNA
 <213> Artificial
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 <223> Synthetic polynucleotide
 <400> 101
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 <210> 102
 <211> 23

<212> DNA
 <213> Artificial
 <220>
 <223> Synthetic polynucleotide
 <400> 102
 cggtttagcgt agagtggttt cag 23

<210> 103
 <211> 116
 <212> DNA
 <213> Artificial
 <220>
 <223> Synthetic polynucleotide
 <400> 103
 ctggtggcctt ctatcgtgtt tatcagcttt ggtgtgattg cggctttttg ttgtgccata 60
 gttgacgggg tctttgctgc cagacacatt gatctgaaac cactctacgc taaccg 116

<210> 104
 <211> 25
 <212> DNA
 <213> Artificial
 <220>
 <223> Synthetic polynucleotide
 <400> 104
 ccttctagcc aaggatctca gagtg 25

<210> 105
 <211> 26
 <212> DNA
 <213> Artificial
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 <223> Synthetic polynucleotide
 <400> 105
 cttgggttgt gatttgattc cttctc 26

<210> 106
 <211> 209
 <212> DNA
 <213> Artificial
 <220>
 <223> Synthetic polynucleotide
 <400> 106
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 aaagtcccta tttttgagga agatacacc tctgttatgg aaattgaaat ggaagagctt 120
 gataaatgga tgaacagcat gaatagaaat gccgactttg aatgtttacc taccttgaag 180
 gaagagaagg aatcaaata caaccaag 209

<210> 107
 <211> 21
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 <220>
 <223> Synthetic polynucleotide

 <400> 107
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<210> 108
 <211> 22
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic polynucleotide

 <400> 108
 gtgttcacac cttggcagtc ag 22

<210> 109
 <211> 183
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic polynucleotide

 <400> 109
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 tacgcctgt gtgctctgct acctgttcat cagctctaag cccacacaa agttggacct 120
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 cac 183

<210> 110
 <211> 1455
 <212> DNA
 <213> Homo sapiens

 <400> 110
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 ggcaccgtcc tgcggcacgt ggccaatccc cgcggcgctg tcacgccgga gtacaccgta 180
 gccaatgtca tctctgtcgg ctcggggctg ctgagcgttt ccgtgggact tgtggccctc 240
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 gtggccaacg gtggccgccg ccttattgct gactgccacc caggactgct ggatcctctg 420
 gtaccactgg atgagggggc gggacatact gactgccctt ttgacccac aagaatctat 480

gatacagcct	tggctctctg	gatcccttct	ttgctcatgt	ctgcagggga	ggctgctcta	540
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ctgcccgcga	accactacct	gagcaccag	tccgccctga	gcaaagaccc	caacgagaag	1380
cgcgatcaca	tggctcctgt	ggagtctgtg	accgccgccg	ggatcactct	cggcatggac	1440
gagctgtaca	agtaa					1455

<210> 111
 <211> 1437
 <212> DNA
 <213> Homo sapiens

<400> 111

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ctcgtgacca	ccctgaccta	cggcgtgcag	tgcttcagcc	gctaccccga	ccacatgaag	240
cagcacgact	tcttcaagtc	cgccatgccc	gaaggctacg	tccaggagcg	caccatcttc	300
ttcaaggacg	acggcaacta	caagaccgcg	gccgaggtga	agttcgaggg	cgacaccctg	360
gtgaaccgca	tcgagctgaa	gggcatcgac	ttcaaggagg	acggcaacat	cctggggcac	420
aagctggagt	acaactacaa	cagccacaac	gtctatatca	tggccgacaa	gcagaagaac	480
ggcatcaagg	tgaacttcaa	gatccgccac	aacatcgagg	acggcagcgt	gcagctcgcc	540
gaccactacc	agcagaacac	ccccatcggc	gacggccccg	tgctgctgcc	cgacaaccac	600
tacctgagca	cccagtccgc	cctgagcaaa	gaccccaacg	agaagcgcg	tcacatggtc	660
ctgctggagt	tcgtgaccgc	cgccgggatc	actctcggca	tggacgagct	gtacaagagg	720
cgctgcagtc	tctgcgcttt	cgacgccgcc	cggggggcca	ggcggctgat	gcgtgtgggc	780

ctcgcgctga tcttgggtggg ccacgtgaac ctgctgctgg gggccgtgct gcatggcacc	840
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gtcatctctg tcggctcggg gctgctgagc gtttccgtgg gacttgtggc cctcctggcg	960
tccaggaacc ttcttcgccc tccactgcac tgggtcctgc tggcactagc tctggtgaac	1020
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aacggtggcc gccgccttat tgctgactgc caccaggac tgctggatcc tctggtacca	1140
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gccttggtc tctggatccc ttctttgctc atgtctgcag gggaggctgc tctatctggt	1260
tactgctgtg tggctgcact cactctacgt ggagttgggc cctgcaggaa ggacggactt	1320
caggggcagc tagaggaaat gacagagctt gaatctccta aatgtaaaag gcaggaaaat	1380
gagcagctac tggatcaaaa tcaagaaatc cgggcatcac agagaagttg ggttttag	1437

<210> 112
 <211> 723
 <212> DNA
 <213> Homo sapiens

<400> 112

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ggcaccgtcc tgcggcacgt ggccaatccc cgcggcgctg tcacgccgga gtacaccgta	180
gccaatgtca tctctgtcgg ctcggggctg ctgagcgttt ccgtgggact tgtggccctc	240
ctggcgtcca ggaaccttct tcgccctcca ctgactggg tcctgctggc actagctctg	300
gtgaacctgc tcttgtccgt tgcctgtccc ctgggcctcc ttcttgctgt gtcactcact	360
gtggccaacg gtggccgccg ccttattgct gactgccacc caggactgct ggatcctctg	420
gtaccactgg atgaggggccc gggacatact gactgccctt ttgacccac aagaatctat	480
gatacagcct tggctctctg gatcccttct ttgctcatgt ctgcagggga ggctgctcta	540
tctggttact gctgtgtggc tgcactcact ctacgtggag ttgggccctg caggaaggac	600
ggacttcagg ggcagctaga ggaaatgaca gagcttgaat ctctaaatg taaaaggcag	660
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tag	723

<210> 113
 <211> 484
 <212> PRT
 <213> Homo sapiens

<400> 113

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Arg	Leu	Met	Arg	Val	Gly	Leu	Ala	Leu	Ile	Leu	Val	Gly	His	Val	Asn
			20					25					30		

Leu Leu Leu Gly Ala Val Leu His Gly Thr Val Leu Arg His Val Ala
 35 40 45
 Asn Pro Arg Gly Ala Val Thr Pro Glu Tyr Thr Val Ala Asn Val Ile
 50 55 60
 Ser Val Gly Ser Gly Leu Leu Ser Val Ser Val Gly Leu Val Ala Leu
 65 70 75 80
 Leu Ala Ser Arg Asn Leu Leu Arg Pro Pro Leu His Trp Val Leu Leu
 85 90 95
 Ala Leu Ala Leu Val Asn Leu Leu Leu Ser Val Ala Cys Ser Leu Gly
 100 105 110
 Leu Leu Leu Ala Val Ser Leu Thr Val Ala Asn Gly Gly Arg Arg Leu
 115 120 125
 Ile Ala Asp Cys His Pro Gly Leu Leu Asp Pro Leu Val Pro Leu Asp
 130 135 140
 Glu Gly Pro Gly His Thr Asp Cys Pro Phe Asp Pro Thr Arg Ile Tyr
 145 150 155 160
 Asp Thr Ala Leu Ala Leu Trp Ile Pro Ser Leu Leu Met Ser Ala Gly
 165 170 175
 Glu Ala Ala Leu Ser Gly Tyr Cys Cys Val Ala Ala Leu Thr Leu Arg
 180 185 190
 Gly Val Gly Pro Cys Arg Lys Asp Gly Leu Gln Gly Gln Leu Glu Glu
 195 200 205
 Met Thr Glu Leu Glu Ser Pro Lys Cys Lys Arg Gln Glu Asn Glu Gln
 210 215 220
 Leu Leu Asp Gln Asn Gln Glu Ile Arg Ala Ser Gln Arg Ser Trp Val
 225 230 235 240
 Gly Pro Val Ala Thr Met Val Ser Lys Gly Glu Glu Leu Phe Thr Gly
 245 250 255
 Val Val Pro Ile Leu Val Glu Leu Asp Gly Asp Val Asn Gly His Lys
 260 265 270
 Phe Ser Val Ser Gly Glu Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu
 275 280 285
 Thr Leu Lys Phe Ile Cys Thr Thr Gly Lys Leu Pro Val Pro Trp Pro
 290 295 300
 Thr Leu Val Thr Thr Leu Thr Tyr Gly Val Gln Cys Phe Ser Arg Tyr
 305 310 315 320
 Pro Asp His Met Lys Gln His Asp Phe Phe Lys Ser Ala Met Pro Glu
 325 330 335
 Gly Tyr Val Gln Glu Arg Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr
 340 345 350
 Lys Thr Arg Ala Glu Val Lys Phe Glu Gly Asp Thr Leu Val Asn Arg
 355 360 365
 Ile Glu Leu Lys Gly Ile Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly
 370 375 380
 His Lys Leu Glu Tyr Asn Tyr Asn Ser His Asn Val Tyr Ile Met Ala
 385 390 395 400

Asp Lys Gln Lys Asn Gly Ile Lys Val Asn Phe Lys Ile Arg His Asn
 405 410 415
 Ile Glu Asp Gly Ser Val Gln Leu Ala Asp His Tyr Gln Gln Asn Thr
 420 425 430
 Pro Ile Gly Asp Gly Pro Val Leu Leu Pro Asp Asn His Tyr Leu Ser
 435 440 445
 Thr Gln Ser Ala Leu Ser Lys Asp Pro Asn Glu Lys Arg Asp His Met
 450 455 460
 Val Leu Leu Glu Phe Val Thr Ala Ala Gly Ile Thr Leu Gly Met Asp
 465 470 475 480

Glu Leu Tyr Lys
 <210> 114

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

<400> 114

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

Arg Cys Ser Leu Cys₂₄₅ Ala Phe Asp Ala₂₅₀ Arg Gly Pro Arg Arg₂₅₅ Leu
 Met Arg Val Gly₂₆₀ Leu Ala Leu Ile Leu₂₆₅ Val Gly His Val Asn₂₇₀ Leu Leu
 Leu Gly Ala₂₇₅ Val Leu His Gly Thr₂₈₀ Val Leu Arg His Val₂₈₅ Ala Asn Pro
 Arg Gly₂₉₀ Ala Val Thr Pro Glu₂₉₅ Tyr Thr Val Ala Asn₃₀₀ Val Ile Ser Val
 Gly₃₀₅ Ser Gly Leu Leu Ser₃₁₀ Val Ser Val Gly₃₁₅ Leu Val Ala Leu Leu Ala₃₂₀
 Ser Arg Asn Leu Leu₃₂₅ Arg Pro Pro Leu His₃₃₀ Trp Val Leu Leu Ala₃₃₅ Leu
 Ala Leu Val Asn₃₄₀ Leu Leu Leu Ser Val₃₄₅ Ala Cys Ser Leu Gly₃₅₀ Leu Leu
 Leu Ala Val₃₅₅ Ser Leu Thr Val Ala₃₆₀ Asn Gly Gly Arg Arg₃₆₅ Leu Ile Ala
 Asp Cys₃₇₀ His Pro Gly Leu Leu₃₇₅ Asp Pro Leu Val₃₈₀ Pro Leu Asp Glu Gly
 Pro Gly₃₈₅ His Thr Asp Cys₃₉₀ Pro Phe Asp Pro Thr₃₉₅ Arg Ile Tyr Asp Thr₄₀₀
 Ala Leu Ala Leu Trp₄₀₅ Ile Pro Ser Leu Leu₄₁₀ Met Ser Ala Gly Glu₄₁₅ Ala
 Ala Leu Ser Gly₄₂₀ Tyr Cys Cys Val Ala₄₂₅ Ala Leu Thr Leu Arg Gly Val₄₃₀
 Gly Pro Cys₄₃₅ Arg Lys Asp Gly Leu₄₄₀ Gln Gly Gln Leu Glu₄₄₅ Glu Met Thr
 Glu Leu₄₅₀ Glu Ser Pro Lys Cys₄₅₅ Lys Arg Gln Glu Asn₄₆₀ Glu Gln Leu Leu
 Asp Gln Asn Gln Glu Ile₄₇₀ Arg Ala Ser Gln Arg₄₇₅ Ser Trp Val

<210> 115
 <211> 16
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic polypeptide

<400> 115

Glu Gln Leu Leu Asp Gln Asn Gln Glu Ile Arg Ala Ser Gln Arg Ser
 1 5 10 15

<210> 116
 <211> 16
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic polypeptide

<400> 116

Leu Asp Glu Gly Pro Gly His Thr Asp Cys Pro Phe Asp Pro Thr Arg
1 5 10 15

<210> 117

<211> 13

<212> PRT

<213> Artificial

<220>

<223> Synthetic polypeptide

<400> 117

Glu Lys Phe Arg Ala Val Leu Asp Leu His Val Lys His
1 5 10

<210> 118

<211> 15

<212> PRT

<213> Artificial

<220>

<223> Synthetic polypeptide

<400> 118

Cys Asn Gln Ala Lys Ala Ser Asp Val Gln Asp Leu Leu Lys Asp
1 5 10 15

<210> 119

<211> 1002

<212> DNA

<213> Homo sapiens

<400> 119

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gtgttaattc	tcacagtggg	ccttgctgca	accaccagga	cccagaatgt	gactgtagga	180
ggttattacc	ccggagttat	tctcggcttt	ggatcgttcc	ttggaatcat	tggatcaaac	240
cttattgaga	acaaaaggca	gatgctggtg	gcttctatcg	tgtttatcag	ctttggtgtg	300
attgcggctt	tttgttgtgc	catagttgac	ggggctcttg	ctgccagaca	cattgatctg	360
aaaccactct	acgctaaccg	gtgccattat	gttcccaaga	catcacagaa	ggaagctgag	420
gaggttaact	gccctcacct	cagccgtgaa	ttctgcacac	ctcgcacccg	gggcaacacc	480
tgcttctgct	gtgacctcta	caactgtggc	aaccgggtgg	agatcactgg	tgggtactac	540
gaatacatcg	atgtcagcag	ttgccaagat	atcatccacc	tctaccacct	gctctggtct	600
gccaccatcc	tcaacattgt	tggcctgttc	ctgggcatca	tcactgccgc	tgctccttga	660
ggctttaagg	acatgaacct	aactctccca	gcactgaact	gttctgttga	aaatacccat	720
ccaacagttt	cttactatgc	tcatccccaa	gtggcatcct	acaataccta	ctaccatagc	780
cctcctcacc	tgccaccata	ttctgcttat	gactttcagc	attccggtgt	ctttccatcc	840

tccccctcct ctggactttc tgatgagccc cagtctgcct ctccctcacc cagctacatg 900
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 ccaccttaca gtcccgacta caaagacgat gacgacaagt aa 1002

<210> 120
 <211> 333
 <212> PRT
 <213> Homo sapiens

<400> 120

Met His Gln Ser Leu Thr Gln Gln Arg Ser Ser Asp Met Ser Leu Pro
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 Asp Ser Met Gly Ala Phe Asn Arg Arg Lys Arg Asn Ser Ile Tyr Val
 20 25 30
 Thr Val Thr Leu Leu Ile Val Ser Val Leu Ile Leu Thr Val Gly Leu
 35 40 45
 Ala Ala Thr Thr Arg Thr Gln Asn Val Thr Val Gly Gly Tyr Tyr Pro
 50 55 60
 Gly Val Ile Leu Gly Phe Gly Ser Phe Leu Gly Ile Ile Gly Ser Asn
 65 70 75 80
 Leu Ile Glu Asn Lys Arg Gln Met Leu Val Ala Ser Ile Val Phe Ile
 85 90 95
 Ser Phe Gly Val Ile Ala Ala Phe Cys Cys Ala Ile Val Asp Gly Val
 100 105 110
 Phe Ala Ala Arg His Ile Asp Leu Lys Pro Leu Tyr Ala Asn Arg Cys
 115 120 125
 His Tyr Val Pro Lys Thr Ser Gln Lys Glu Ala Glu Glu Val Asn Cys
 130 135 140
 Pro His Leu Ser Arg Glu Phe Cys Thr Pro Arg Ile Arg Gly Asn Thr
 145 150 155 160
 Cys Phe Cys Cys Asp Leu Tyr Asn Cys Gly Asn Arg Val Glu Ile Thr
 165 170 175
 Gly Gly Tyr Tyr Glu Tyr Ile Asp Val Ser Ser Cys Gln Asp Ile Ile
 180 185 190
 His Leu Tyr His Leu Leu Trp Ser Ala Thr Ile Leu Asn Ile Val Gly
 195 200 205
 Leu Phe Leu Gly Ile Ile Thr Ala Ala Val Leu Gly Gly Phe Lys Asp
 210 215 220
 Met Asn Pro Thr Leu Pro Ala Leu Asn Cys Ser Val Glu Asn Thr His
 225 230 235 240
 Pro Thr Val Ser Tyr Tyr Ala His Pro Gln Val Ala Ser Tyr Asn Thr
 245 250 255
 Tyr Tyr His Ser Pro Pro His Leu Pro Pro Tyr Ser Ala Tyr Asp Phe
 260 265 270
 Gln His Ser Gly Val Phe Pro Ser Ser Pro Pro Ser Gly Leu Ser Asp
 275 280 285
 Glu Pro Gln Ser Ala Ser Pro Ser Pro Ser Tyr Met Trp Ser Ser Ser

290 295 300
Ala Pro Pro Arg Tyr Ser Pro Pro Tyr Tyr Pro Pro Phe Glu Lys Pro
305 310 315 320
Pro Pro Tyr Ser Pro Asp Tyr Lys Asp Asp Asp Asp Lys
325 330

<210> 121
<211> 15
<212> PRT
<213> Artificial

<220>
<223> Synthetic polypeptide

<400> 121

Cys His Tyr Val Pro Lys Thr Ser Gln Lys Glu Ala Glu Glu Val
1 5 10 15

<210> 122
<211> 23
<212> DNA
<213> Artificial

<220>
<223> Synthetic polynucleotide

<400> 122

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<210> 123
<211> 20
<212> DNA
<213> Artificial

<220>
<223> Synthetic polynucleotide

<400> 123

ggatctgctg ctctgttcc 20

<210> 124
<211> 163
<212> DNA
<213> Artificial

<220>
<223> Synthetic polynucleotide

<400> 124

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atcattcttc tgatttttac atctgtcacc cgatgcctat ctccagttag ttttctgcag 120

ctgaaattct ggaaaatcta tttggaacag gaggcagaga tcc 163

<210> 125
<211> 669
<212> DNA

<213> Homo sapiens

<400> 125

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tgatttagct tatggaagag gaaccagaaa tttgtccttg aataatgttt cccgtgttgg      180
gctggatctt gatagcagtt gttatcatca ttcttctgat ttttacatct gtcacccgat      240
gcctatctcc agttagtttt ctgcagctga aattctggaa aatctatttg gaacaggagc      300
agcagatcct taaaagtaaa gccacagagc atgcaactga attggcaaaa gagaatatta      360
aatgtttctt tgagggctcg catccaaaag aatataacac tccaagcatg aaagagtggc      420
agcaaatttc atcactgtat actttcaatc cgaagggcca gtactacagc atgttgcaca      480
aatatgtcaa cagaaaagag aagactcaca gtatcaggtc tactgaagga gatacggtga      540
ttcctgttct tggctttgta gattcatctg gtataaacag cactcctgag ttatgacctt      600
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tatttttttg                                     669
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<210> 126

<211> 101

<212> DNA

<213> Artificial

<220>

<223> Synthetic polynucleotide

<400> 126

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<210> 127

<211> 117

<212> PRT

<213> Homo sapiens

<400> 127

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Glu Gln Glu Gln Gln Ile Leu Lys Ser Lys Ala Thr Glu His Ala Thr
20     25     30
Glu Leu Ala Lys Glu Asn Ile Lys Cys Phe Phe Glu Gly Ser His Pro
35     40     45
Lys Glu Tyr Asn Thr Pro Ser Met Lys Glu Trp Gln Gln Ile Ser Ser
50     55     60
Leu Tyr Thr Phe Asn Pro Lys Gly Gln Tyr Tyr Ser Met Leu His Lys
65     70     75     80
Tyr Val Asn Arg Lys Glu Lys Thr His Ser Ile Arg Ser Thr Glu Gly
85     90     95
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Asp Thr Val Ile Pro Val Leu Gly Phe Val Asp Ser Ser Gly Ile Asn
100 105 110

Ser Thr Pro Glu Leu
115

<210> 128
<211> 24
<212> DNA
<213> Artificial

<220>
<223> Synthetic polynucleotide

<400> 128

aacatcatgg atcagaacaa cagc 24

<210> 129
<211> 26
<212> DNA
<213> Artificial

<220>
<223> Synthetic polynucleotide

<400> 129

atcattggac taaagatagg gattcc 26

<210> 130
<211> 101
<212> DNA
<213> Artificial

<220>
<223> Synthetic polynucleotide

<400> 130

aacatcatgg atcagaacaa cagcctgcc a cttacgctc agggcttggc ctcccctcag 60

ggtgccatga ctcccggaat ccctatcttt agtccaatga t 101

<210> 131
<211> 888
<212> DNA
<213> Homo sapiens

<400> 131

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ccgccccgcc tgcccctacc cctccgcgcg ggccggggcac ctggccgccg ctcggtcctc 120

ggggccccgc gctgctgtct ctgtctcggc ttctctcggc ccctgggtct cttcgtctct 180

gccgttctca ggctcagctc cgtctcgtc ggtccctcgc ttccccgccg ggctctagcc 240

ggccgtctgg tggcccgagg tggcggcggg ctgggcgcgg ggcgcgatga gcggcgctct 300

cacgagctac gtgagcgag agcaggaggt ggtgcgcggc tttagctgcc cgcggccggg 360

gggcgaggcg gccgctgtct tctgctgcgg cttccgcgac cacaagtact gctgcgacga 420

cccgcacagc ttcttcccct acgagcacag ctacatgtgg tggctcagca ttggcgctct 480
 cataggcctg tccgtagcag cagtggttct tctcgcttc attgttaccg cctgtgtgct 540
 ctgctacctg ttcacagct ctaagcccca cacaagttg gacctgggct tgagcttaca 600
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 agaagtgcc aagtgagcc ctctccagca gagttactcc tgcttgaacc cgcagctgga 720
 gagcaatgag gggcaggctg tgaactcaa acgcctcctc catcattgct tcatggccac 780
 agtgaccacc agtgacattc caggcagccc tgaggaagcc tctgtacca accctgacct 840
 atgtggacca gtccataaa cattcaataa atgtctccat accatccc 888

<210> 132
 <211> 72
 <212> PRT
 <213> Homo sapiens

<400> 132

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 Arg Gly Phe Ser Cys Pro Arg Pro Gly Gly Glu Ala Ala Ala Val Phe
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 Cys Cys Gly Phe Arg Asp His Lys Tyr Cys Cys Asp Asp Pro His Ser
 35 40 45
 Phe Phe Pro Tyr Glu His Ser Tyr Met Trp Trp Leu Arg Asp Gly Val
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 Ser Pro Cys Cys Pro Gly Trp Ser
 65 70

<210> 133
 <211> 153
 <212> PRT
 <213> Homo sapiens

<400> 133

Met Ser Gly Ala Cys Thr Ser Tyr Val Ser Ala Glu Gln Glu Val Val
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 Arg Gly Phe Ser Cys Pro Arg Pro Gly Gly Glu Ala Ala Ala Val Phe
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 Cys Cys Gly Phe Arg Asp His Lys Tyr Cys Cys Asp Asp Pro His Ser
 35 40 45
 Phe Phe Pro Tyr Glu His Ser Tyr Met Trp Trp Leu Ser Ile Gly Ala
 50 55 60
 Leu Ile Gly Leu Ser Val Ala Ala Val Val Leu Leu Ala Phe Ile Val
 65 70 75 80
 Thr Ala Cys Val Leu Cys Tyr Leu Phe Ile Ser Ser Lys Pro His Thr
 85 90 95
 Lys Leu Asp Leu Gly Leu Ser Leu Gln Thr Ala Gly Pro Val Gln Val
 100 105 110
 Ala Thr Asn Lys Arg Asn Gln Thr Val Leu Thr Leu Lys Gly Leu Thr

115 120 125
 Trp Arg Thr Arg Gln Ala His Lys Trp Pro Gly Gly Pro Val Val Ala
 130 135 140
 Leu His Gly Ala Leu Gly Arg Lys Lys
 145 150

<210> 134
 <211> 134
 <212> PRT
 <213> Homo sapiens

<400> 134

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 Val Val Leu Leu Ala Phe Ile Val Thr Ala Cys Val Leu Cys Tyr Leu
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 Phe Ile Ser Ser Lys Pro His Thr Lys Leu Asp Leu Gly Leu Ser Leu
 35 40 45
 Gln Thr Ala Gly Pro Glu Glu Val Ser Pro Asp Cys Gln Gly Val Asn
 50 55 60
 Thr Gly Met Ala Ala Glu Val Pro Lys Val Ser Pro Leu Gln Gln Ser
 65 70 75 80
 Tyr Ser Cys Leu Asn Pro Gln Leu Glu Ser Asn Glu Gly Gln Ala Val
 85 90 95
 Asn Ser Lys Arg Leu Leu His His Cys Phe Met Ala Thr Val Thr Thr
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 Ser Asp Ile Pro Gly Ser Pro Glu Glu Ala Ser Val Pro Asn Pro Asp
 115 120 125
 Leu Cys Gly Pro Val Pro
 130

<210> 135
 <211> 190
 <212> PRT
 <213> Homo sapiens

<400> 135

Met Ser Gly Ala Cys Thr Ser Tyr Val Ser Ala Glu Gln Glu Val Val
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 Arg Gly Phe Ser Cys Pro Arg Pro Gly Gly Glu Ala Ala Ala Val Phe
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 Cys Cys Gly Phe Arg Asp His Lys Tyr Cys Cys Asp Asp Pro His Ser
 35 40 45
 Phe Phe Pro Tyr Glu His Ser Tyr Met Trp Trp Leu Ser Ile Gly Ala
 50 55 60
 Leu Ile Gly Leu Ser Val Ala Ala Val Val Leu Leu Ala Phe Ile Val
 65 70 75 80
 Thr Ala Cys Val Leu Cys Tyr Leu Phe Ile Ser Ser Lys Pro His Thr
 85 90 95

Lys Leu Asp Leu Gly Leu Ser Leu Gln Thr Ala Gly Pro Glu Glu Val
 100 105 110
 Ser Pro Asp Cys Gln Gly Val Asn Thr Gly Met Ala Ala Glu Val Pro
 115 120 125
 Lys Val Ser Pro Leu Gln Gln Ser Tyr Ser Cys Leu Asn Pro Gln Leu
 130 135 140
 Glu Ser Asn Glu Gly Gln Ala Val Asn Ser Lys Arg Leu Leu His His
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 Cys Phe Met Ala Thr Val Thr Thr Ser Asp Ile Pro Gly Ser Pro Glu
 165 170 175
 Glu Ala Ser Val Pro Asn Pro Asp Leu Cys Gly Pro Val Pro
 180 185 190

<210> 136
 <211> 2405
 <212> DNA
 <213> Homo sapiens

<400> 136

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<210> 137
 <211> 1435
 <212> DNA
 <213> Homo sapiens

<400> 137

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taactggaaa	gaatgtcttg	attgtggaag	atataattga	cactggcaaa	acaatgcaga	600
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<210> 138
 <211> 2395
 <212> DNA
 <213> Homo sapiens

<400> 138

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<210> 139
 <211> 2201
 <212> DNA
 <213> Homo sapiens

<400> 139

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<210> 140
 <211> 1867
 <212> DNA
 <213> Homo sapiens

<400> 140

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aattgaggaa gttgctgaga agagtgtgct ggagatgctc taggaaaaaa ttgaatagtg	180
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gaacaacagc ctgccacctt acgctcaggg cttggcctcc cctcaggggtg ccatgactcc	300
cggaatccct atcttttagtc caatgatgcc ttatggcact ggactgaccc cacagcctat	360
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aaaaaaa	1867

<210> 141
 <211> 684
 <212> PRT
 <213> Homo sapiens

<400> 141

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 Ser Pro Ser Thr Ala Ala Gln Phe Ile Tyr Ser Arg Arg Asp Lys Pro
 35 40 45
 Ser Val Glu Pro Val Glu Glu Tyr Asp Tyr Glu Asp Leu Lys Glu Ser
 50 55 60
 Ser Asn Ser Val Ser Asn His Gln Leu Ser Gly Phe Asp Gln Ala Arg
 65 70 75 80
 Leu Tyr Ser Cys Leu Asp His Met Arg Glu Val Leu Gly Asp Ala Val
 85 90 95
 Pro Asp Glu Ile Leu Ile Glu Ala Val Leu Lys Asn Lys Phe Asp Val
 100 105 110
 Gln Lys Ala Leu Ser Gly Val Leu Glu Gln Asp Arg Val Gln Ser Leu
 115 120 125
 Lys Asp Lys Asn Glu Ala Thr Val Ser Thr Gly Lys Ile Ala Lys Gly
 130 135 140
 Lys Pro Val Asp Ser Gln Thr Ser Arg Ser Glu Ser Glu Ile Val Pro
 145 150 155 160
 Lys Val Ala Lys Met Thr Val Ser Gly Lys Lys Gln Thr Met Gly Phe
 165 170 175
 Glu Val Pro Gly Val Ser Ser Glu Glu Asn Gly His Ser Phe His Thr
 180 185 190
 Pro Gln Lys Gly Pro Pro Ile Glu Asp Ala Ile Ala Ser Ser Asp Val
 195 200 205
 Leu Glu Thr Ala Ser Lys Ser Ala Asn Pro Pro His Thr Ile Gln Ala
 210 215 220
 Ser Glu Glu Gln Ser Ser Thr Pro Ala Pro Val Lys Lys Ser Gly Lys
 225 230 235 240
 Leu Arg Gln Gln Ile Asp Val Lys Ala Glu Leu Glu Lys Arg Gln Gly
 245 250 255
 Gly Lys Gln Leu Leu Asn Leu Val Val Ile Gly His Val Asp Ala Gly
 260 265 270
 Lys Ser Thr Leu Met Gly His Met Leu Tyr Leu Leu Gly Asn Ile Asn
 275 280 285
 Lys Arg Thr Met His Lys Tyr Glu Gln Glu Ser Lys Lys Ala Gly Lys
 290 295 300
 Ala Ser Phe Ala Tyr Ala Trp Val Leu Asp Glu Thr Gly Glu Glu Arg
 305 310 315 320
 Glu Arg Gly Val Thr Met Asp Val Gly Met Thr Lys Phe Glu Thr Thr
 325 330 335
 Thr Lys Val Ile Thr Leu Met Asp Ala Pro Gly His Lys Asp Phe Ile
 340 345 350
 Pro Asn Met Ile Thr Gly Ala Ala Gln Ala Asp Val Ala Val Leu Val
 355 360 365

Val Asp Ala Ser Arg Gly Glu Phe Glu Ala Gly Phe Glu Thr Gly Gly
 370 375 380
 Gln Thr Arg Glu His Gly Leu Leu Val Arg Ser Leu Gly Val Thr Gln
 385 390 395 400
 Leu Ala Val Ala Val Asn Lys Met Asp Gln Val Asn Trp Gln Gln Glu
 405 410 415
 Arg Phe Gln Glu Ile Thr Gly Lys Leu Gly His Phe Leu Lys Gln Ala
 420 425 430
 Gly Phe Lys Glu Ser Asp Val Gly Phe Ile Pro Thr Ser Gly Leu Ser
 435 440 445
 Gly Glu Asn Leu Ile Thr Arg Ser Gln Ser Ser Glu Leu Thr Lys Trp
 450 455 460
 Tyr Lys Gly Leu Cys Leu Leu Glu Gln Ile Asp Ser Phe Lys Pro Pro
 465 470 475 480
 Gln Arg Ser Ile Asp Lys Pro Phe Arg Leu Cys Val Ser Asp Val Phe
 485 490 495
 Lys Asp Gln Gly Ser Gly Phe Cys Ile Thr Gly Lys Ile Glu Ala Gly
 500 505 510
 Tyr Ile Gln Thr Gly Asp Arg Leu Leu Ala Met Pro Pro Asn Glu Thr
 515 520 525
 Cys Thr Val Lys Gly Ile Thr Leu His Asp Glu Pro Val Asp Trp Ala
 530 535 540
 Ala Ala Gly Asp His Val Ser Leu Thr Leu Val Gly Met Asp Ile Ile
 545 550 555 560
 Lys Ile Asn Val Gly Cys Ile Phe Cys Gly Pro Lys Val Pro Ile Lys
 565 570 575
 Ala Cys Thr Arg Phe Arg Ala Arg Ile Leu Ile Phe Asn Ile Glu Ile
 580 585 590
 Pro Ile Thr Lys Gly Phe Pro Val Leu Leu His Tyr Gln Thr Val Ser
 595 600 605
 Glu Pro Ala Val Ile Lys Arg Leu Ile Ser Val Leu Asn Lys Ser Thr
 610 615 620
 Gly Glu Val Thr Lys Lys Lys Pro Lys Phe Leu Thr Lys Gly Gln Asn
 625 630 635 640
 Ala Leu Val Glu Leu Gln Thr Gln Arg Pro Ile Ala Leu Glu Leu Tyr
 645 650 655
 Lys Asp Phe Lys Glu Leu Gly Arg Phe Met Leu Arg Tyr Gly Gly Ser
 660 665 670
 Thr Ile Ala Ala Gly Val Val Thr Glu Ile Lys Glu
 675 680

<210> 142
 <211> 664
 <212> PRT
 <213> Homo sapiens

<400> 142

Met Ser Gly Val Arg Gly Leu Ser Arg Leu Leu Ser Ala Arg Arg Leu
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1		5		10		15									
Ala	Leu	Ala	Lys 20	Ala	Trp	Pro	Thr	Val 25	Leu	Gln	Thr	Gly	Thr 30	Arg	Gly
Phe	His	Phe 35	Thr	Val	Asp	Gly	Asn 40	Lys	Arg	Ala	Ser	Ala 45	Lys	Val	Ser
Asp	Ser 50	Ile	Ser	Ala	Gln	Tyr 55	Pro	Val	Val	Asp	His 60	Glu	Phe	Asp	Ala
Val 65	Val	Val	Gly	Ala	Gly 70	Gly	Ala	Gly	Leu	Arg 75	Ala	Ala	Phe	Gly	Leu 80
Ser	Glu	Ala	Gly	Phe 85	Asn	Thr	Ala	Cys	Val 90	Thr	Lys	Leu	Phe	Pro 95	Thr
Arg	Ser	His	Thr 100	Val	Ala	Ala	Gln	Gly 105	Gly	Ile	Asn	Ala	Ala 110	Leu	Gly
Asn	Met	Glu 115	Glu	Asp	Asn	Trp	Arg 120	Trp	His	Phe	Tyr	Asp 125	Thr	Val	Lys
Gly	Ser 130	Asp	Trp	Leu	Gly	Asp 135	Gln	Asp	Ala	Ile	His 140	Tyr	Met	Thr	Glu
Gln 145	Ala	Pro	Ala	Ala	Val 150	Val	Glu	Leu	Glu	Asn 155	Tyr	Gly	Met	Pro	Phe 160
Ser	Arg	Thr	Glu	Asp 165	Gly	Lys	Ile	Tyr	Gln 170	Arg	Ala	Phe	Gly	Gly 175	Gln
Ser	Leu	Lys	Phe 180	Gly	Lys	Gly	Gly	Gln 185	Ala	His	Arg	Cys	Cys 190	Cys	Val
Ala	Asp	Arg 195	Thr	Gly	His	Ser	Leu 200	Leu	His	Thr	Leu	Tyr 205	Gly	Arg	Ser
Leu	Arg 210	Tyr	Asp	Thr	Ser	Tyr 215	Phe	Val	Glu	Tyr	Phe 220	Ala	Leu	Asp	Leu
Leu 225	Met	Glu	Asn	Gly	Glu 230	Cys	Arg	Gly	Val	Ile 235	Ala	Leu	Cys	Ile	Glu 240
Asp	Gly	Ser	Ile	His 245	Arg	Ile	Arg	Ala	Lys 250	Asn	Thr	Val	Val	Ala 255	Thr
Gly	Gly	Tyr	Gly 260	Arg	Thr	Tyr	Phe	Ser 265	Cys	Thr	Ser	Ala	His 270	Thr	Ser
Thr	Gly	Asp 275	Gly	Thr	Ala	Met	Ile 280	Thr	Arg	Ala	Gly	Leu 285	Pro	Cys	Gln
Asp	Leu 290	Glu	Phe	Val	Gln	Phe 295	His	Pro	Thr	Gly	Ile 300	Tyr	Gly	Ala	Gly
Cys 305	Leu	Ile	Thr	Glu	Gly 310	Cys	Arg	Gly	Glu	Gly 315	Gly	Ile	Leu	Ile	Asn 320
Ser	Gln	Gly	Glu	Arg 325	Phe	Met	Glu	Arg	Tyr 330	Ala	Pro	Val	Ala	Lys 335	Asp
Leu	Ala	Ser	Arg 340	Asp	Val	Val	Ser	Arg 345	Ser	Met	Thr	Leu	Glu 350	Ile	Arg
Glu	Gly	Arg 355	Gly	Cys	Gly	Pro	Glu 360	Lys	Asp	His	Val	Tyr 365	Leu	Gln	Leu
His	His	Leu	Pro	Pro	Glu	Gln	Leu	Ala	Thr	Arg	Leu	Pro	Gly	Ile	Ser

370					375					380					
Glu 385	Thr	Ala	Met	Ile	Phe 390	Ala	Gly	Val	Asp	Val 395	Thr	Lys	Glu	Pro	Ile 400
Pro	Val	Leu	Pro	Thr 405	Val	His	Tyr	Asn	Met 410	Gly	Gly	Ile	Pro	Thr 415	Asn
Tyr	Lys	Gly	Gln 420	Val	Leu	Arg	His	Val 425	Asn	Gly	Gln	Asp	Gln 430	Ile	Val
Pro	Gly	Leu 435	Tyr	Ala	Cys	Gly	Glu 440	Ala	Ala	Cys	Ala	Ser 445	Val	His	Gly
Ala	Asn 450	Arg	Leu	Gly	Ala	Asn 455	Ser	Leu	Leu	Asp	Leu 460	Val	Val	Phe	Gly
Arg 465	Ala	Cys	Ala	Leu	Ser 470	Ile	Glu	Glu	Ser	Cys 475	Arg	Pro	Gly	Asp	Lys 480
Val	Pro	Pro	Ile	Lys 485	Pro	Asn	Ala	Gly	Glu 490	Glu	Ser	Val	Met	Asn 495	Leu
Asp	Lys	Leu	Arg 500	Phe	Ala	Asp	Gly	Ser 505	Ile	Arg	Thr	Ser	Glu 510	Leu	Arg
Leu	Ser	Met 515	Gln	Lys	Ser	Met	Gln 520	Asn	His	Ala	Ala	Val 525	Phe	Arg	Val
Gly	Ser 530	Val	Leu	Gln	Glu	Gly 535	Cys	Gly	Lys	Ile	Ser 540	Lys	Leu	Tyr	Gly
Asp 545	Leu	Lys	His	Leu	Lys 550	Thr	Phe	Asp	Arg	Gly 555	Met	Val	Trp	Asn	Thr 560
Asp	Leu	Val	Glu	Thr 565	Leu	Glu	Leu	Gln	Asn 570	Leu	Met	Leu	Cys	Ala 575	Leu
Gln	Thr	Ile	Tyr 580	Gly	Ala	Glu	Ala	Arg 585	Lys	Glu	Ser	Arg	Gly 590	Ala	His
Ala	Arg	Glu 595	Asp	Tyr	Lys	Val	Arg 600	Ile	Asp	Glu	Tyr	Asp 605	Tyr	Ser	Lys
Pro	Ile 610	Gln	Gly	Gln	Gln	Lys 615	Lys	Pro	Phe	Glu	Glu 620	His	Trp	Arg	Lys
His 625	Thr	Leu	Ser	Tyr	Val 630	Asp	Val	Gly	Thr	Gly 635	Lys	Val	Thr	Leu	Glu 640
Tyr	Arg	Pro	Val	Ile 645	Asp	Lys	Thr	Leu	Asn 650	Glu	Ala	Asp	Cys	Ala 655	Thr
Val	Pro	Pro	Ala 660	Ile	Arg	Ser	Tyr								

<210> 143
 <211> 494
 <212> PRT
 <213> Homo sapiens

<400> 143

Met 1	Pro	Arg	Val	Tyr 5	Ile	Gly	Arg	Leu	Ser 10	Tyr	Gln	Ala	Arg	Glu 15	Arg
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Leu Lys Asn Gly Tyr Gly Phe Val Glu Phe Asp Asp Leu Arg Asp Ala
 35 40 45
 Asp Asp Ala Val Tyr Glu Leu Asn Gly Lys Asp Leu Cys Gly Glu Arg
 50 55 60
 Val Ile Val Glu His Ala Arg Gly Pro Arg Arg Asp Gly Ser Tyr Gly
 65 70 75 80
 Ser Gly Arg Ser Gly Tyr Gly Tyr Arg Arg Ser Gly Arg Asp Lys Tyr
 85 90 95
 Gly Pro Pro Thr Arg Thr Glu Tyr Arg Leu Ile Val Glu Asn Leu Ser
 100 105 110
 Ser Arg Cys Ser Trp Gln Asp Leu Lys Asp Tyr Met Arg Gln Ala Gly
 115 120 125
 Glu Val Thr Tyr Ala Asp Ala His Lys Gly Arg Lys Asn Glu Gly Val
 130 135 140
 Ile Glu Phe Val Ser Tyr Ser Asp Met Lys Arg Ala Leu Glu Lys Leu
 145 150 155 160
 Asp Gly Thr Glu Val Asn Gly Arg Lys Ile Arg Leu Val Glu Asp Lys
 165 170 175
 Pro Gly Ser Arg Arg Arg Arg Ser Tyr Ser Arg Ser Arg Ser His Ser
 180 185 190
 Arg Ser Arg Ser Arg Ser Arg His Ser Arg Lys Ser Arg Ser Arg Ser
 195 200 205
 Gly Ser Ser Lys Ser Ser His Ser Lys Ser Arg Ser Arg Ser Arg Ser
 210 215 220
 Gly Ser Arg Ser Arg Ser Lys Ser Arg Ser Arg Ser Gln Ser Arg Ser
 225 230 235 240
 Arg Ser Lys Lys Glu Lys Ser Arg Ser Pro Ser Lys Glu Lys Ser Arg
 245 250 255
 Ser Arg Ser His Ser Ala Gly Lys Ser Arg Ser Lys Ser Lys Asp Gln
 260 265 270
 Ala Glu Glu Lys Ile Gln Asn Asn Asp Asn Val Gly Lys Pro Lys Ser
 275 280 285
 Arg Ser Pro Ser Arg His Lys Ser Lys Ser Lys Ser Arg Ser Arg Ser
 290 295 300
 Gln Glu Arg Arg Val Glu Glu Glu Lys Arg Gly Ser Val Ser Arg Gly
 305 310 315 320
 Arg Ser Gln Glu Lys Ser Leu Arg Gln Ser Arg Ser Arg Ser Arg Ser
 325 330 335
 Lys Gly Gly Ser Arg Ser Arg Ser Arg Ser Arg Ser Lys Ser Lys Asp
 340 345 350
 Lys Arg Lys Gly Arg Lys Arg Ser Arg Glu Glu Ser Arg Ser Arg Ser
 355 360 365
 Arg Ser Arg Ser Lys Ser Glu Arg Ser Arg Lys Arg Gly Ser Lys Arg
 370 375 380
 Asp Ser Lys Ala Gly Ser Ser Lys Lys Lys Lys Glu Asp Thr Asp
 385 390 395 400

Arg Ser Gln Ser Arg₄₀₅ Ser Pro Ser Arg Ser₄₁₀ Val Ser Lys Glu Arg₄₁₅ Glu
 His Ala Lys Ser₄₂₀ Glu Ser Ser Gln Arg₄₂₅ Glu Gly Arg Gly Glu₄₃₀ Ser Glu
 Asn Ala Gly₄₃₅ Thr Asn Gln Glu Thr₄₄₀ Arg Ser Arg Ser Arg₄₄₅ Ser Asn Ser
 Lys Ser₄₅₀ Lys Pro Asn Leu Pro₄₅₅ Ser Glu Ser Arg Ser₄₆₀ Arg Ser Lys Ser
 Ala Ser Lys Thr Arg Ser₄₇₀ Arg Ser Lys Ser Arg₄₇₅ Ser Arg Ser Ala Ser₄₈₀
 Arg Ser Pro Ser Arg₄₈₅ Ser Arg Ser Arg Ser₄₉₀ His Ser Arg Ser

<210> 144
 <211> 376
 <212> PRT
 <213> Homo sapiens

<400> 144

Thr Phe Pro Arg Glu₅ Trp Leu Cys Asp Arg₁₀ His Leu Arg Glu Lys₁₅ Met
 Phe Ser Ser Val₂₀ Ala His Leu Ala Arg₂₅ Ala Asn Pro Phe Asn₃₀ Thr Pro
 His Leu Gln₃₅ Leu Val His Asp Gly₄₀ Leu Gly Asp Leu Arg₄₅ Ser Ser Ser
 Pro Gly₅₀ Pro Thr Gly Gln₅₅ Arg Arg Pro Arg Asn₆₀ Leu Ala Ala Ala
 Ala Val Glu Glu Tyr Ser₇₀ Cys Glu Phe Gly Ser₇₅ Ala Lys Tyr Tyr Ala₈₀
 Leu Cys Gly Phe Gly₈₅ Gly Val Leu Ser Cys₉₀ Gly Leu Thr His Thr₉₅ Ala
 Val Val Pro Leu₁₀₀ Asp Leu Val Lys Cys₁₀₅ Arg Met Gln Val Asp Pro Gln
 Lys Tyr Lys₁₁₅ Gly Ile Phe Asn Gly₁₂₀ Phe Ser Val Thr Leu₁₂₅ Lys Glu Asp
 Gly Val Arg Gly Leu Ala Lys₁₃₅ Gly Trp Ala Pro Thr₁₄₀ Phe Leu Gly Tyr
 Ser Met Gln Gly Leu Cys₁₅₀ Lys Phe Gly Phe Tyr₁₅₅ Glu Val Phe Lys Val₁₆₀
 Leu Tyr Ser Asn Met₁₆₅ Leu Gly Glu Glu Asn Thr Tyr Leu Trp Arg Thr₁₇₅
 Ser Leu Tyr Leu₁₈₀ Ala Ala Ser Ala Ser₁₈₅ Ala Glu Phe Phe Ala Asp Ile
 Ala Leu Ala Pro Met Glu Ala Ala Lys Val Arg Ile Gln Thr Gln Pro
 Gly Tyr Ala Asn Thr Leu Arg₂₁₅ Asp Ala Ala Pro Lys₂₂₀ Met Tyr Lys Glu

Glu Gly Leu Lys Ala Phe Tyr Lys Gly Val Ala Pro Leu Trp Met Arg
 225 230 235 240
 Gln Ile Pro Tyr Thr Met Met Lys Phe Ala Cys Phe Glu Arg Thr Val
 245 250 255
 Glu Ala Leu Tyr Lys Phe Val Val Pro Lys Pro Arg Ser Glu Cys Ser
 260 265 270
 Lys Pro Glu Gln Leu Val Val Thr Phe Val Ala Gly Tyr Ile Ala Gly
 275 280 285
 Val Phe Cys Ala Ile Val Ser His Pro Ala Asp Ser Val Val Ser Val
 290 295 300
 Leu Asn Lys Glu Lys Gly Ser Ser Ala Ser Leu Val Leu Lys Arg Leu
 305 310 315 320
 Gly Phe Lys Gly Val Trp Lys Gly Leu Phe Ala Arg Ile Ile Met Ile
 325 330 335
 Gly Thr Leu Thr Ala Leu Gln Trp Phe Ile Tyr Asp Ser Val Lys Val
 340 345 350
 Tyr Phe Arg Leu Pro Arg Pro Pro Pro Glu Met Pro Glu Ser Leu
 355 360 365
 Lys Lys Lys Leu Gly Leu Thr Gln
 370 375

<210> 145
 <211> 339
 <212> PRT
 <213> Homo sapiens

<400> 145

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

<220>
<223> Synthetic polypeptide

<400> 148

Val Val Ala Gly Cys Asp Ala Arg Val Lys Gln Lys Ala Trp Gln Pro
1 5 10 15
Arg Phe Pro Gly Ile Lys Val Lys Ala Leu
20 25

<210> 149
<211> 18
<212> PRT
<213> Artificial

<220>
<223> Synthetic polypeptide

<400> 149

Arg Trp Gly Arg Leu Gly Gly Ala Glu Arg Pro Ser Phe Leu Arg Ala
1 5 10 15
Ala Gly
<210> 150

<211> 56
<212> PRT
<213> Artificial

<220>
<223> Synthetic polypeptide

<400> 150

Met Ser Gly Ala Cys Thr Ser Tyr Val Ser Ala Glu Gln Glu Val Val
1 5 10 15
Arg Gly Phe Ser Cys Pro Arg Pro Gly Gly Glu Ala Ala Ala Val Phe
20 25 30
Cys Cys Gly Phe Arg Asp His Lys Tyr Cys Cys Asp Asp Pro His Ser
35 40 45
Phe Phe Pro Tyr Glu His Ser Tyr
50 55

<210> 151
<211> 81
<212> PRT
<213> Artificial

<220>
<223> Synthetic polypeptide

<400> 151

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

Leu His His Cys Phe Met Ala Thr Val Thr Thr Ser Asp Ile Pro Gly
50 55 60

Ser Pro Glu Glu Ala Ser Val Pro Asn Pro Asp Leu Cys Gly Pro Val
65 70 75 80

Pro
<210> 152

<211> 130

<212> PRT

<213> Artificial

<220>

<223> Synthetic polypeptide

<400> 152

Ser Ile Gly Ala Leu Ile Gly Leu Ser Val Ala Ala Val Val Leu Leu
1 5 10 15

Ala Phe Ile Val Thr Ala Cys Val Leu Cys Tyr Leu Phe Ile Ser Ser
20 25 30

Lys Pro His Thr Lys Leu Asp Leu Gly Leu Ser Leu Gln Thr Ala Gly
35 40 45

Pro Glu Glu Val Ser Pro Asp Cys Gln Gly Val Asn Thr Gly Met Ala
50 55 60

Ala Glu Val Pro Lys Val Ser Pro Leu Gln Gln Ser Tyr Ser Cys Leu
65 70 75 80

Asn Pro Gln Leu Glu Ser Asn Glu Gly Gln Ala Val Asn Ser Lys Arg
85 90 95

Leu Leu His His Cys Phe Met Ala Thr Val Thr Thr Ser Asp Ile Pro
100 105 110

Gly Ser Pro Glu Glu Ala Ser Val Pro Asn Pro Asp Leu Cys Gly Pro
115 120 125

Val Pro
130

<210> 153

<211> 64

<212> PRT

<213> Artificial

<220>

<223> Synthetic polypeptide

<400> 153

Met Ala Ser Leu Trp Pro Ser Ala Leu Thr Phe Asn Thr Asp Ala Asn
1 5 10 15

Ile Pro Gly Pro Leu Gly Phe Cys Gly Gly Trp Val Arg Leu Cys Ser
20 25 30

Leu Ser Ser Leu Thr Pro Pro Cys Gly Arg Arg Leu Val Pro Cys Leu
35 40 45

Ser Ala Pro Ala Pro Asn Ala Pro Arg Leu Pro Ala Pro Ala Arg Cys
50 55 60

<210> 154
 <211> 81
 <212> PRT
 <213> Artificial

 <220>
 <223> Synthetic polypeptide

 <400> 154
 Glu Glu Val Ser Pro Asp Cys Gln Gly Val Asn Thr Gly Met Ala Ala
 1 5 10 15
 Glu Val Pro Lys Val Ser Pro Leu Gln Gln Ser Tyr Ser Cys Leu Asn
 20 25 30
 Pro Gln Leu Glu Ser Asn Glu Gly Gln Ala Val Asn Ser Lys Arg Leu
 35 40 45
 Leu His His Cys Phe Met Ala Thr Val Thr Thr Ser Asp Ile Pro Gly
 50 55 60
 Ser Pro Glu Glu Ala Ser Val Pro Asn Pro Asp Leu Cys Gly Pro Val
 65 70 75 80

Pro
 <210> 155
 <211> 165
 <212> PRT
 <213> Artificial

 <220>
 <223> Synthetic polypeptide

 <400> 155
 Met His Gln Ser Leu Thr Gln Gln Arg Ser Ser Asp Met Ser Leu Pro
 1 5 10 15
 Asp Ser Met Gly Ala Phe Asn Arg Arg Lys Arg Asn Ser Ile Tyr Val
 20 25 30
 Thr Val Thr Leu Leu Ile Val Ser Val Leu Ile Leu Thr Val Gly Leu
 35 40 45
 Ala Ala Thr Thr Arg Thr Gln Asn Val Thr Val Gly Gly Tyr Tyr Pro
 50 55 60
 Gly Val Ile Leu Gly Phe Gly Ser Phe Leu Gly Ile Ile Gly Ser Asn
 65 70 75 80
 Leu Ile Glu Asn Lys Arg Gln Met Leu Val Ala Ser Ile Val Phe Ile
 85 90 95
 Ser Phe Gly Val Ile Ala Ala Phe Cys Cys Ala Ile Val Asp Gly Val
 100 105 110
 Phe Ala Ala Arg His Ile Asp Leu Lys Pro Leu Tyr Ala Asn Arg Cys
 115 120 125
 His Tyr Val Pro Lys Thr Ser Gln Lys Glu Ala Glu Glu Val Ile Ser
 130 135 140
 Ser Ser Thr Lys Asn Ser Pro Ser Thr Arg Val Met Arg Asn Leu Thr
 145 150 155 160
 Gln Ala Ala Arg Glu

165

<210> 156
 <211> 141
 <212> PRT
 <213> Artificial

<220>
 <223> synthetic polypeptide

<400> 156

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

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<210> 157
 <211> 78
 <212> PRT
 <213> Artificial

<220>
 <223> synthetic polypeptide

<400> 157

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

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<210> 158
 <211> 141

<212> PRT
<213> Artificial

<220>
<223> Synthetic polypeptide

<400> 158

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

<210> 159
<211> 67
<212> PRT
<213> Artificial

<220>
<223> Synthetic polypeptide

<400> 159

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

<210> 160
<211> 120
<212> PRT
<213> Artificial

<220>
<223> Synthetic polypeptide

<400> 160

Met His Gln Ser Leu Thr Gln Gln Arg Ser Ser Asp Met Ser Leu Pro
1 5 10 15
Asp Ser Met Gly Ala Phe Asn Arg Arg Lys Arg Asn Ser Ile Tyr Val
20 25 30
Thr Val Thr Leu Leu Ile Val Ser Val Leu Ile Leu Thr Val Gly Leu
35 40 45
Ala Ala Thr Thr Arg Thr Gln Asn Val Thr Val Gly Gly Tyr Tyr Pro
50 55 60
Gly Val Ile Leu Val Ala Ser Ile Val Phe Ile Ser Phe Gly Val Ile
65 70 75 80
Ala Ala Phe Cys Cys Ala Ile Val Asp Gly Val Phe Ala Ala Arg His
85 90 95
Ile Asp Leu Lys Pro Leu Tyr Ala Asn Arg Cys His Tyr Val Pro Lys
100 105 110
Thr Ser Gln Lys Glu Ala Glu Glu
115 120

<210> 161

<211> 55

<212> PRT

<213> Artificial

<220>

<223> Synthetic polypeptide

<400> 161

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

<210> 162

<211> 23

<212> PRT

<213> Artificial

<220>

<223> Synthetic polypeptide

<400> 162

Cys Lys Ile Gln Leu Ser Trp Lys Val Ile Pro Ala Phe Cys Leu Glu
1 5 10 15
Ser Ser His Arg Asn Ala Leu
20

<210> 163

<211> 33
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic polynucleotide

 <400> 163
 ctagctagcc accatgaggc gctgcagtct ctg 33

 <210> 164
 <211> 32
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic polynucleotide

 <400> 164
 cgcgaccggt ccaacccaac ttctctgtga tg 32

 <210> 165
 <211> 34
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic polynucleotide

 <400> 165
 cgattgtaca agaggcgctg cagtctctgc gctt 34

 <210> 166
 <211> 31
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic polynucleotide

 <400> 166
 gcgcgcggcc gcctaaaccc aacttctctg t 31

 <210> 167
 <211> 32
 <212> DNA
 <213> Artificial

 <220>
 <223> Synthetic polynucleotide

 <400> 167
 ctagctagcc accatgcatc agtccctgac tc 32

 <210> 168
 <211> 75
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic polynucleotide
 <400> 168
 ataagaatgc ggccgctcat tacttgtcgt catcgtcttt gtagtcggga ctgtaagggtg 60
 gtggcttttc aaaag 75

<210> 169
 <211> 19
 <212> DNA
 <213> Artificial
 <220>
 <223> Synthetic polynucleotide
 <400> 169
 agagcccagc aggccaaag 19

<210> 170
 <211> 19
 <212> DNA
 <213> Artificial
 <220>
 <223> Synthetic polynucleotide
 <400> 170
 agcaggaccc agtgcagtg 19

<210> 171
 <211> 111
 <212> DNA
 <213> Artificial
 <220>
 <223> Synthetic polynucleotide
 <400> 171
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 cctcctggcg tccaggaacc ttcttcgccc tccactgcac tgggtcctgc t 111

<210> 172
 <211> 30
 <212> DNA
 <213> Artificial
 <220>
 <223> Synthetic polynucleotide
 <400> 172
 ctagctagcc accatggaga agtttcgggc 30

<210> 173
 <211> 68
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic polynucleotide
 <400> 173
 cgccacgggt cattacttgt cgtcatcgtc tttgtagtct aactcaggag tgctgtttat 60
 accagatg 68

<210> 174
 <211> 972
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic polynucleotide
 <400> 174
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 ggcttggtga ccctgctgac ggaggggagg gagcgcatct tctccgccgt ggcatccag 120
 tgcccggtga gcggcgctg gaacctgccc tacggcctgg tcttcttgct ggtgccggcg 180
 ctgcgctct tctcctggg ctacgtgctg agcgacgca cgtggcgctt gctcaccgga 240
 tgctgctcca gcggcgcgcg gagttgcgga tcggcgctgc gcggctccct ggtgtgcgcg 300
 caaatcagcg cggccgccc gctcgcgccc ctacactggg tggccgtggc gctgctcggg 360
 ggcgctttt acgagtgcgc ggccaccggg agcgcgccct tcgcgcagcg cctgtgcctc 420
 ggccgcaacc gcagctgcgc cgaggagctg ccgctggtgc cgtgcaacca ggccaaggcg 480
 tcggacgtgc aggacctct gaaggatctg aaggctcagt cgcaggtgtt gggctggatc 540
 ttgatagcag ttgttatcat cattcttctg atttttacat ctgtcaccg atgcctatct 600
 ccagttagtt ttctgcagct gaaattctgg aaaatctatt tggaacagga gcagcagatc 660
 cttaaaagta aagccacaga gcatgcaact gaattggcaa aagagaatat taaatgtttc 720
 tttgagggtc cgcatccaaa agaataaac actccaagca tgaaagagtg gcagcaaatt 780
 tcatcactgt atactttcaa tccgaagggc cagtactaca gcatgttgca caaatatgtc 840
 aacagaaaag agaagactca cagtatcagg tctactgaag gagatacggg gattcctgtt 900
 cttggctttg tagattcatc tggataaac agcactcctg agttagacta caaagacgat 960
 gacgacaagt aa 972

<210> 175
 <211> 323
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic polypeptide
 <400> 175
 Met Glu Lys Phe Arg Ala Val Leu Asp Leu His Val Lys His His Ser
 1 5 10 15
 Ala Leu Gly Tyr Gly Leu Val Thr Leu Leu Thr Ala Gly Gly Glu Arg
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20					25					30					
Ile	Phe	Ser ₃₅	Ala	Val	Ala	Phe	Gln ₄₀	Cys	Pro	Cys	Ser	Ala ₄₅	Ala	Trp	Asn
Leu	Pro	Tyr	Gly	Leu	Val	Phe ₅₅	Leu	Leu	Val	Pro	Ala ₆₀	Leu	Ala	Leu	Phe
Leu	Leu	Gly	Tyr	Val	Leu ₇₀	Ser	Ala	Arg	Thr	Trp ₇₅	Arg	Leu	Leu	Thr	Gly ₈₀
Cys	Cys	Ser	Ser	Ala ₈₅	Arg	Ala	Ser	Cys	Gly ₉₀	Ser	Ala	Leu	Arg	Gly ₉₅	Ser
Leu	Val	Cys	Ala ₁₀₀	Gln	Ile	Ser	Ala	Ala ₁₀₅	Ala	Ala	Leu	Ala	Pro ₁₁₀	Leu	Thr
Trp	Val	Ala ₁₁₅	Val	Ala	Leu	Leu	Gly ₁₂₀	Gly	Ala	Phe	Tyr	Glu ₁₂₅	Cys	Ala	Ala
Thr	Gly ₁₃₀	Ser	Ala	Ala	Phe	Ala ₁₃₅	Gln	Arg	Leu	Cys	Leu ₁₄₀	Gly	Arg	Asn	Arg
Ser	Cys	Ala	Ala	Glu	Leu ₁₅₀	Pro	Leu	Val	Pro	Cys ₁₅₅	Asn	Gln	Ala	Lys	Ala ₁₆₀
Ser	Asp	Val	Gln	Asp ₁₆₅	Leu	Leu	Lys	Asp	Leu ₁₇₀	Lys	Ala	Gln	Ser	Gln ₁₇₅	Val
Leu	Gly	Trp	Ile ₁₈₀	Leu	Ile	Ala	Val	Val ₁₈₅	Ile	Ile	Ile	Leu	Leu ₁₉₀	Ile	Phe
Thr	Ser	Val ₁₉₅	Thr	Arg	Cys	Leu	Ser ₂₀₀	Pro	Val	Ser	Phe	Leu ₂₀₅	Gln	Leu	Lys
Phe	Trp ₂₁₀	Lys	Ile	Tyr	Leu	Glu ₂₁₅	Gln	Glu	Gln	Gln	Ile ₂₂₀	Leu	Lys	Ser	Lys
Ala	Thr	Glu	His	Ala	Thr ₂₃₀	Glu	Leu	Ala	Lys	Glu ₂₃₅	Asn	Ile	Lys	Cys	Phe ₂₄₀
Phe	Glu	Gly	Ser	His ₂₄₅	Pro	Lys	Glu	Tyr	Asn ₂₅₀	Thr	Pro	Ser	Met	Lys ₂₅₅	Glu
Trp	Gln	Gln	Ile ₂₆₀	Ser	Ser	Leu	Tyr	Thr ₂₆₅	Phe	Asn	Pro	Lys	Gly ₂₇₀	Gln	Tyr
Tyr	Ser	Met ₂₇₅	Leu	His	Lys	Tyr	Val ₂₈₀	Asn	Arg	Lys	Glu	Lys ₂₈₅	Thr	His	Ser
Ile	Arg ₂₉₀	Ser	Thr	Glu	Gly	Asp ₂₉₅	Thr	Val	Ile	Pro	Val ₃₀₀	Leu	Gly	Phe	Val
Asp	Ser	Ser	Gly	Ile	Asn ₃₁₀	Ser	Thr	Pro	Glu	Leu ₃₁₅	Asp	Tyr	Lys	Asp	Asp ₃₂₀

Asp Asp Lys
<210> 176

<211> 20

<212> DNA

<213> Artificial

<220>

<223> synthetic polynucleotide

<400> 176

tcgtctctgc cgttctcagg

<210> 177
 <211> 24
 <212> DNA
 <213> Artificial
 <220>
 <223> Synthetic polynucleotide
 <400> 177
 gggatggtat ggagacattt attg 24

<210> 178
 <211> 60
 <212> DNA
 <213> Artificial
 <220>
 <223> Synthetic polynucleotide
 <400> 178
 ctagctagcc accatggact acaaagacga tgacgacaag agcgggcgcct gcacgagcta 60

<210> 179
 <211> 30
 <212> DNA
 <213> Artificial
 <220>
 <223> Synthetic polynucleotide
 <400> 179
 cggaattctt atgggactgg tccacatagg 30

<210> 180
 <211> 37
 <212> DNA
 <213> Artificial
 <220>
 <223> Synthetic polynucleotide
 <400> 180
 ctagctagcc accatgagcg ggcctgcac gagctac 37

<210> 181
 <211> 57
 <212> DNA
 <213> Artificial
 <220>
 <223> Synthetic polynucleotide
 <400> 181
 ccggaattct tacttgctgt catcgtcttt gtagtctggg actggtccac ataggtc 57

<210> 182
 <211> 597

<212> DNA
<213> Artificial

<220>
<223> Synthetic polynucleotide

<400> 182

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caggaggtgg tgcgcggcctt cagctgcccc gggccggggg gcgaggcggc cgctgtcttc	120
tgctgcggct tccgcgacca caagtactgc tgcgacgacc cgcacagctt cttcccctac	180
gagcacagct acatgtggtg gctcagcatt ggcgctctca taggcctgtc cgtagcagca	240
gtggttcttc tcgccttcat tgttaccgcc tgtgtgctct gctacctgtt catcagctct	300
aagccccaca caaagttgga cctgggcttg agcttacaga cagcaggccc tgaggaggtt	360
tctcctgact gccaaagtgat gaacacaggc atggcggcag aagtgccaaa agtgagccct	420
ctccagcaga gttactcctg cttgaacccg cagctggaga gcaatgaggg gcaggctgtg	480
aactccaaac gcctcctcca tcattgcttc atggccacag tgaccaccag tgacattcca	540
ggcagccctg aggaagcctc tgtaccaaac cctgacctat gtggaccagt cccataa	597

<210> 183
<211> 597
<212> DNA
<213> Artificial

<220>
<223> Synthetic polynucleotide

<400> 183

atgagcggcg cctgcacgag ctacgtgagc gcagagcagg aggtggtgcg cggcttcagc	60
tgcccgcggc cggggggcga ggcggccgct gtcttctgct gcggcttccg cgaccacaag	120
tactgctgcg acgaccgcga cagcttcttc ccctacgagc acagctacat gtggtggctc	180
agcattggcg ctctcatagg cctgtccgta gcagcagtgg ttcttctcgc cttcattggt	240
accgcctgtg tgctctgcta cctgttcatc agctctaagc cccacacaaa gttggacctg	300
ggcttgagct tacagacagc aggccctgag gaggtttctc ctgactgcca aggtgtgaac	360
acaggcatgg cggcagaagt gccaaaagtg agccctctcc agcagagtta ctctgcttg	420
aacccgcagc tggagagcaa tgaggggcag gctgtgaact ccaaacgcct cctccatcat	480
tgcttcatgg ccacagtgac caccagtgac attccaggca gccctgagga agcctctgta	540
cccaaccctg acctatgtgg accagtccca gactacaaag acgatgacga caagtaa	597

<210> 184
<211> 198
<212> PRT
<213> Artificial

<220>
<223> Synthetic polynucleotide

<400> 184

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 Val Ser Ala Glu Gln Glu Val Val Arg Gly Phe Ser Cys Pro Arg Pro
 20 25 30
 Gly Gly Glu Ala Ala Ala Val Phe Cys Cys Gly Phe Arg Asp His Lys
 35 40 45
 Tyr Cys Cys Asp Asp Pro His Ser Phe Phe Pro Tyr Glu His Ser Tyr
 50 55 60
 Met Trp Trp Leu Ser Ile Gly Ala Leu Ile Gly Leu Ser Val Ala Ala
 65 70 75 80
 Val Val Leu Leu Ala Phe Ile Val Thr Ala Cys Val Leu Cys Tyr Leu
 85 90 95
 Phe Ile Ser Ser Lys Pro His Thr Lys Leu Asp Leu Gly Leu Ser Leu
 100 105 110
 Gln Thr Ala Gly Pro Glu Glu Val Ser Pro Asp Cys Gln Gly Val Asn
 115 120 125
 Thr Gly Met Ala Ala Glu Val Pro Lys Val Ser Pro Leu Gln Gln Ser
 130 135 140
 Tyr Ser Cys Leu Asn Pro Gln Leu Glu Ser Asn Glu Gly Gln Ala Val
 145 150 155 160
 Asn Ser Lys Arg Leu Leu His His Cys Phe Met Ala Thr Val Thr Thr
 165 170 175
 Ser Asp Ile Pro Gly Ser Pro Glu Glu Ala Ser Val Pro Asn Pro Asp
 180 185 190
 Leu Cys Gly Pro Val Pro
 195

<210> 185
 <211> 198
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic polypeptide

<400> 185

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

Lys Leu Asp Leu Gly Leu Ser Leu Gln Thr Ala Gly Pro Glu Glu Val
 100 105 110
 Ser Pro Asp Cys Gln Gly Val Asn Thr Gly Met Ala Ala Glu Val Pro
 115 120 125
 Lys Val Ser Pro Leu Gln Gln Ser Tyr Ser Cys Leu Asn Pro Gln Leu
 130 135 140
 Glu Ser Asn Glu Gly Gln Ala Val Asn Ser Lys Arg Leu Leu His His
 145 150 155 160
 Cys Phe Met Ala Thr Val Thr Thr Ser Asp Ile Pro Gly Ser Pro Glu
 165 170 175
 Glu Ala Ser Val Pro Asn Pro Asp Leu Cys Gly Pro Val Pro Asp Tyr
 180 185 190
 Lys Asp Asp Asp Asp Lys
 195

<210> 186
 <211> 18
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic polynucleotide

<400> 186

Met His Gln Ser Leu Thr Gln Gln Arg Ser Ser Asp Met Ser Leu Pro
 1 5 10 15

Asp Ser
 <210> 187

<211> 38
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic polynucleotide

<400> 187

ctagctagcc accatgcagg ctccccgcgc agccctag 38

<210> 188
 <211> 53
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic polynucleotide

<400> 188

ttacttgtcg tcatcgtctt tgtagtcgga ttcactgtca cttgggttgt gat 53

<210> 189
 <211> 576
 <212> DNA
 <213> Artificial

<220>

<223> Synthetic polypeptide

<400> 189

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cggggtaatt atgaggaatt agaaaactca ggagatacaa ctgtggaatc tgaaagacca      120
aataaagtga ctattccaag cacatttgct gcagtgacca tcaaagaaac attaaatgca      180
aatataaatt ctaccaactt tgctccggat gaaaatcagt tagagtttat actgatggtg      240
ttaatcccat tgattttatt ggtcctctta cttttatccg tggatttcct tgcaacatac      300
tataaaagaa aaagaactaa acaagaacct tctagccaag gatctcagag tgctttacag      360
acatatgaac tgggaagtga aaacgtgaaa gtccctatatt ttgaggaaga tacaccctct      420
gttatggaaa ttgaaatgga agagcttgat aaatggatga acagcatgaa tagaaatgcc      480
gactttgaat gtttacctac cttgaaggaa gagaaggaat caaatcacao cccaagtgcac      540
agtgaatccg actacaaaga cgatgacgac aagtaa                                576
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<210> 190

<211> 191

<212> PRT

<213> Artificial

<220>

<223> Synthetic polypeptide

<400> 190

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

185

190

<210> 191
 <211> 19
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic polypeptide

<400> 191

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

Ser Glu Arg
 <210> 192

<211> 17
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic polypeptide

<400> 192

Tyr Lys Arg Lys Arg Thr Lys Gln Glu Pro Ser Ser Gln Gly Ser Gln
 1 5 10 15

Ser
 <210> 193

<211> 78
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic polynucleotide

<400> 193

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 gctttgtgtc ttccacag 78

<210> 194
 <211> 48
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic polynucleotide

<400> 194

gtaaggaagg caaacaggaa gggttcattc cacagagact ggctgtgt 48

<210> 195
 <211> 20
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic polynucleotide

<400> 195

ccctccactg gatacagcct

20

<210> 196

<211> 20

<212> PRT

<213> Artificial

<220>

<223> Synthetic polypeptide

<400> 196

Pro Lys Thr Ser Gln Lys Glu Ala Glu Glu Asn Pro Thr Leu Pro Ala
1 5 10 15

Leu Asn Cys Ser
20

<210> 197

<211> 20

<212> DNA

<213> Artificial

<220>

<223> Synthetic polynucleotide

<400> 197

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20

<210> 198

<211> 20

<212> DNA

<213> Artificial

<220>

<223> Synthetic polynucleotide

<400> 198

cggagttatt ctggtggctt

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<210> 199

<211> 20

<212> PRT

<213> Artificial

<220>

<223> Synthetic polypeptide

<400> 199

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

Phe Ile Ser Phe
20

<210> 200

<211> 35

<212> PRT

<213> Artificial

<220>
<223> Synthetic polypeptide

<400> 200

Leu Cys Ser Leu Ser Ser Leu Thr Pro Pro Cys Gly Arg Arg Leu Val
1 5 10 15
Pro Cys Leu Ser Ala Pro Ala Pro Asn Ala Pro Arg Leu Pro Ala Pro
20 25 30
Ala Arg Cys
35

<210> 201
<211> 108
<212> DNA
<213> Artificial

<220>
<223> Synthetic polynucleotide

<400> 201

gttgtgttca ctctctcac tgaccccgcc gtgtggtcgc cggctggtgc cttgtctgtc 60
tgccccagcc ccgaatgccc cgagactccc ggcgccggct cgggtgcag 108