

SEQUENCE LISTING

<110> Krystal Biotech, LLC
KRISHNAN, Suma
AGARWAL, Pooja

<120> COMPOSITIONS AND METHODS FOR THE
TREATMENT OF WOUNDS, DISORDERS, AND DISEASES OF THE SKIN

<130> 761342000140

<140> Not Yet Assigned
<141> 2016-12-28

<150> US 62/320,316
<151> 2016-04-08

<160> 30

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 8835
<212> DNA
<213> Homo sapiens

<400> 1
atgacgctgc ggcttctggt ggccgcgctc tgcgccggga tcctggcaga ggcgccccga 60
gtgcgagccc agcacaggga gagagtgacc tgcacgcgcc ttacgccgc tgacattgtg 120
ttcttactgg atggctcctc atccattggc cgcagcaatt tccgcgaggt ccgcagcttt 180
ctcgaagggc tgggtgctgcc tttctctgga gcagccagtg cacagggtgt gcgctttgcc 240
acagtgcagt acagcgatga cccacggaca gaggctcgcc tggatgcact tggctctggg 300
ggtgatgtga tccgcgccat ccgtgagctt agctacaagg ggggcaacac tcgcacaggg 360
gctgcaattc tccatgtggc tgaccatgtc ttctgcccc agctggcccg acctggtgtc 420
cccaaggctc gcatcctgat cacagacggg aagtcccagg acctggtgga cacagctgcc 480
caaaggctga aggggcaggg ggtcaagcta tttgctgtgg ggatcaagaa tgctgaccct 540
gaggagctga agcgagttgc ctacacagccc accagtgact tcttcttctt cgtcaatgac 600
ttcagcatct tgaggacact actgcccctc gtttcccggg gagtgtgcac gactgctggt 660
ggcgtgcctg tgacccgacc tccggatgac tcgacctctg ctccacgaga cctggtgctg 720
tctgagccaa gcagccaatc cttgagagta cagtggacag cggccagtgg ccctgtgact 780
ggctacaagg tccagtacac tcctctgacg gggctgggac agccactgcc gagtgagcgg 840
caggaggtga acgtcccagc tggtagagacc agtgtgcggc tgcggggtct ccggccactg 900
accgagtacc aagtgactgt gattgccctc tacgccaaca gcatcgggga ggctgtgagc 960
gggacagctc ggaccactgc cctagaaggg ccggaactga ccatccagaa taccacagcc 1020
cacagcctcc tgggtggcctg gcggagtgtg ccagggtgcca ctggctaccg tgtgacatgg 1080
cgggtcctca gtgggtgggccc cacacagcag caggagctgg gccctgggca ggggttcagt 1140
ttgctgcgtg acttggagcc tggcacggac tatgaggtga ccgtgagcac cctatttggc 1200
cgcagtgtgg gggccgccac ttccctgatg gctcgcactg acgcttctgt tgagcagacc 1260
ctgcgcccgg tcacctctggg cccacatcc atcctcctt cctggaactt ggtgcctgag 1320

gcccgtggct	accggttggg	atggcggcgt	gagactggct	tggagccacc	gcagaagggtg	1380
gtactgccct	ctgatgtgac	ccgctaccag	ttggatgggc	tgcagccggg	cactgagtac	1440
cgcctcacac	tctacactct	gctggagggc	cacgaggtgg	ccacccctgc	aaccgtgggt	1500
cccactggac	cagagctgcc	tgtgagccct	gtaacagacc	tgcaagccac	cgagctgccc	1560
gggcagcggg	tgcgagtgtc	ctggagccca	gtccctgggt	ccacccagta	ccgcatcatt	1620
gtgcgcagca	cccagggggg	tgagcggacc	ctgggtgctt	ctgggagtca	gacagcattc	1680
gacttggatg	acgttcaggc	tgggcttagc	tacactgtgc	gggtgtctgc	tcgagtgggt	1740
ccccgtgagg	gcagtgccag	tgtcctcact	gtccgccggg	agccggaaac	tccacttgct	1800
gttccagggc	tgcgggttgt	ggtgtcagat	gcaacgcgag	tgagggtggc	ctggggaccc	1860
gtccctggag	ccagtggatt	tcggattagc	tggagcacag	gcagtgggtc	ggagtccagc	1920
cagacactgc	ccccagactc	tactgccaca	gacatcacag	ggctgcagcc	tgggaaccacc	1980
taccaggtgg	ctgtgtcggg	actgcgaggc	agagaggagg	gccctgctgc	agtcacgtg	2040
gctcgaacgg	accactggg	cccagtggg	acgggtccatg	tgactcaggc	cagcagctca	2100
tctgtcacca	ttacctggac	cagggttcct	ggcgccacag	gatacagggt	ttcctggcac	2160
tcagcccacg	gcccagagaa	atcccagttg	gtttctgggg	aggccacggt	ggctgagctg	2220
gatggactgg	agccagatac	tgagtatacg	gtgcatgtga	gggcccattg	ggctggcgtg	2280
gatgggcccc	ctgcctctgt	ggttgtgagg	actgcccctg	agcctgtggg	tcgtgtgtcg	2340
aggctgcaga	tcctcaatgc	ttccagcgac	gttctacgga	tcacctgggt	aggggtcact	2400
ggagccacag	cttacagact	ggcctggggc	cggagtgaag	gcggccccat	gaggcaccag	2460
atactcccag	gaaacacaga	ctctgcagag	atccgggggc	tcgaagggtg	agtcagctac	2520
tcagtgcgag	tgactgcact	tgtcggggac	cgcgagggca	cacctgtctc	cattgttgtc	2580
actacgccgc	ctgaggctcc	gccagccctg	gggacgcttc	acgtgggtgca	gcgcggggag	2640
cactcgtga	ggctgcgtg	ggagccgggt	cccagagcgc	agggttcct	tctgactggt	2700
caacctgagg	gtggccagga	acagtcccgg	gtcctggggc	ccgagctcag	cagctatcac	2760
ctggacgggc	tggagccagc	gacacagtac	cgctgaggc	tgagtgtcct	agggccagct	2820
ggagaagggc	cctctgcaga	ggtgactgcg	cgactgagt	cacctcgtgt	tccaagcatt	2880
gaactacgtg	tgggtggacac	ctcgatcgac	tcggtgactt	tggcctggac	tccagtgtcc	2940
agggcattca	gctacatcct	atcctggcgg	ccactcagag	gccctggcca	ggaagtgcct	3000
gggtccccgc	agacacttcc	agggatctca	agctcccagc	gggtgacagg	gctagagcct	3060
ggcgtctctt	acatcttctc	cctgacgcct	gtcctggatg	gtgtgcgggg	tcctgaggca	3120
tctgtcacac	agacgccagt	gtgccccgt	ggcctggcgg	atgtgggtgt	cctaccacat	3180
gccactcaag	acaatgctca	ccgtgcggag	gctacgagga	gggtcctgga	gcgtctgggt	3240
ttggcacttg	ggcctcttgg	gccacaggca	gttcagggtg	gcctgctgtc	ttacagtcat	3300
cggccctccc	cactgttccc	actgaatggc	tcccatgacc	ttggcattat	cttgcaaagg	3360
atccgtgaca	tgccctacat	ggacccaagt	gggaacaacc	tgggcacagc	cgtggtcaca	3420
gctcacagat	acatgttggc	accagatgct	cctgggcgcc	gccagcacgt	accaggggtg	3480
atggttctgc	tagtggatga	acccttgaga	ggtgacatat	tcagccccat	ccgtgaggcc	3540
caggcttctg	ggcttaatgt	ggtgatgttg	ggaatggctg	gagcggaccc	agagcagctg	3600
cgctgcttgg	cgccgggtat	ggactctgtc	cagaccttct	tcgccgtgga	tgatgggcca	3660
agcctggacc	aggcagtcag	tggcttggtc	acagccctgt	gtcaggcatc	cttcactact	3720
cagccccggc	cagagccctg	cccagtgtat	tgtccaaagg	gccagaaggg	ggaacctgga	3780
gagatgggcc	tgagaggaca	agttgggcct	cctggcgacc	ctggcctccc	gggcaggacc	3840
ggtgctcccc	gccccagggg	gccccctgga	agtgccactg	ccaagggcga	gaggggcttc	3900
cctggagcag	atgggcgtcc	aggcagccct	ggccgcgcgg	ggaatcctgg	gacccctgga	3960
gccccctggc	taaaagggtc	tccagggttg	cctggccctc	gtggggaccc	gggagagcga	4020
ggacctcgag	gccccaaagg	ggagccgggg	gctcccggac	aagtcacgtg	aggtgaaggga	4080
cctgggcctt	ctgggcggaa	aggggacctt	ggaccatcgg	gccccctggg	acctcgtgga	4140
ccactggggg	acccaggacc	ccgtggcccc	ccagggcctt	ctggaacagc	catgaagggt	4200
gacaaaggcg	atcgtggggg	gcgggggtccc	cctggaccag	gtgaagggtg	cattgtctct	4260
ggggagcctg	ggctgccggg	tcttcccggg	agccctggac	cccaaggccc	cgttggcccc	4320

cctggaaaaga	aaggagaaaa	aggtgactct	gaggatggag	ctccaggcct	cccaggacaa	4380
cctgggtctc	cgggtgagca	gggcccacgg	ggacctctg	gagctattgg	cccaaaaggt	4440
gaccggggct	ttccaggggc	cctgggtgag	gctggagaga	agggcgaacg	tggacccccca	4500
ggcccagcgg	gatcccgggg	gctgccaggg	gttgctggac	gtcctggagc	caagggtcct	4560
gaagggccac	caggacccac	tggccgcca	ggagagaagg	gggagcctgg	tcgccctggg	4620
gaccctgcag	tgggtgggacc	tgctgttgct	ggacccaaag	gagaaaaggg	agatgtgggg	4680
cccgtggggc	ccagaggagc	taccggagtc	caaggggaac	ggggcccacc	cggcttggtt	4740
cttcctggag	accctggccc	caagggagac	cctggagacc	ggggtcccat	tggccttact	4800
ggcagagcag	gacccccagg	tgactcaggg	cctcctggag	agaagggaga	ccctgggcgg	4860
cctggccccc	caggacctgt	tggccccga	ggacgagatg	gtgaaattgg	agagaaaggt	4920
gacgagggtc	ctccgggtga	cccgggtttg	cctggaaaaag	caggcgagcg	tggccttcgg	4980
ggggcacctg	gagttcgggg	gcctgtgggt	gaaaaggag	accagggaga	tcctggagag	5040
gatggacgaa	atggcagccc	tggatcatct	ggacccaagg	gtgaccgtgg	ggagccgggt	5100
ccccaggac	ccccgggacg	gctggtagac	acaggacctg	gagccagaga	gaagggagag	5160
cctggggacc	gcggacaaga	gggtcctcga	gggcccagg	gtgatcctgg	cctccctgga	5220
gccccctggg	aaaggggcat	tgaagggttt	cggggacccc	caggcccaca	gggggaccca	5280
ggtgtccgag	gcccagcagg	agaaaaaggt	gaccggggtc	cccctgggct	ggatggccgg	5340
agcggactgg	atgggaaaacc	aggagccgct	gggccctctg	ggccgaatgg	tgctgcaggc	5400
aaagctgggg	accaggggag	agacgggctt	ccaggcctcc	gtggagaaca	gggcctccct	5460
ggccccctctg	gtccccctgg	attaccggga	aagccaggcg	aggatggcaa	acctggcctg	5520
aatggaaaaa	acggagaacc	tggggacctt	ggagaagacg	ggaggaaagg	agagaaagga	5580
gattcaggcg	cctctgggag	agaaggctgt	gatggcccca	agggtgagcg	tggagctcct	5640
ggtatccttg	gaccccaggg	gcctccaggc	ctcccagggc	cagtggggcc	tcctggccag	5700
ggttttcctg	gtgtcccagg	aggcacgggc	cccaagggtg	accgtgggga	gactggatcc	5760
aaaggggagc	agggcctccc	tggagagcgt	ggcctgcgag	gagagcctgg	aagtgtgccg	5820
aatgtggatc	ggttgctgga	aactgctggc	atcaaggcat	ctgccctgcg	ggagatcggt	5880
gagacctggg	atgagagctc	tggtagcttc	ctgcctgtgc	ccgaacggcg	tcgaggcccc	5940
aagggggact	caggcgaaca	gggcccccca	ggcaaggagg	gccccatcgg	ctttcctgga	6000
gaacgcgggc	tgaagggcga	ccgtggagac	cctggccctc	agggggccacc	tggctctggc	6060
cttggggaga	ggggcccccc	cgggccttcc	ggccttgccg	gggagcctgg	aaagcctggt	6120
attcccgggc	tcccaggcag	ggctgggggt	gtgggagagg	caggaaaggcc	aggagagagg	6180
ggagaacggg	gagagaaaagg	agaacgtgga	gaacagggca	gagatggccc	tcctggactc	6240
cctggaaccc	ctgggcccc	cggaccccc	ggccccaagg	tgtctgtgga	tgagccagggt	6300
cctggactct	ctggagaaca	gggaccccc	ggactcaagg	gtgctaaggg	ggagccgggc	6360
agcaatgggtg	accaagggtcc	caaaggagac	aggggtgtgc	caggcatcaa	aggagaccgg	6420
ggagagcctg	gaccgagggg	tcaggacggc	aaccgggtc	taccaggaga	gcgtggtatg	6480
gctgggcctg	aagggaagcc	gggtctgcag	ggtccaagag	gccccctgg	cccagtgggt	6540
ggtcatggag	accctggacc	acctggtgcc	ccgggtcttg	ctggccctgc	aggaccccaa	6600
ggaccttctg	gcctgaaggg	ggagcctgga	gagacaggac	ctccaggacg	gggcctgact	6660
ggacctactg	gagctgtggg	acttcctgga	ccccccggcc	cttcaggcct	tgtgggtcca	6720
caggggtctc	caggtttgcc	tggacaagtg	ggggagacag	ggaagccggg	agccccaggt	6780
cgagatgggtg	ccagtggaaa	agatggagac	agagggagcc	ctggtgtgcc	agggtcacca	6840
ggtctgcctg	gccctgtcgg	acctaaagga	gaacctggcc	ccacgggggc	ccctggacag	6900
gctgtggtcg	ggctccctgg	agcaaaggga	gagaagggag	cccctggagg	ccttgctgga	6960
gacctggtgg	gtgagccggg	agccaaaaggt	gaccgaggac	tgccagggcc	gcgaggcgag	7020
aagggtgaag	ctggccgtgc	aggggagccc	ggagaccctg	gggaagatgg	tcagaaaagg	7080
gctccaggac	ccaaagggtt	caagggtgac	ccaggagtcg	gggtcccggg	ctcccctggg	7140
cctcctggcc	ctccagggtg	gaagggagat	ctgggcctcc	ctggcctgcc	cgggtgctcct	7200
ggtgttgttg	ggttcccggg	tcagacaggc	cctcgaggag	agatgggtca	gccaggccct	7260
agtggagagc	ggggtctggc	aggccccca	gggagagaag	gaatcccagg	accctggggg	7320

```

ccacctggac caccggggtc agtgggacca cctggggcct ctggactcaa aggagacaag 7380
ggagaccctg gagtagggct gcctgggccc cgaggcgagc gtggggagcc aggcacccgg 7440
ggtgaagatg gccgccccgg ccaggaggga ccccgaggac tcacggggcc ccctggcagc 7500
aggggagagc gtggggagaa ggggtgatgtt gggagtgcag gactaaaggg tgacaaggga 7560
gactcagctg tgatcctggg gcctccaggc ccacgggggtg ccaaggggga catgggtgaa 7620
cgagggcctc ggggcttgga tggtgacaaa ggacctcggg gagacaatgg ggaccctggt 7680
gacaagggca gcaagggaga gcctggtgac aagggtcag ccgggttgcc aggactgct 7740
ggactcctgg gaccccaggg tcaacctggt gcagcaggga tccctggtga cccgggatcc 7800
ccaggaaagg atggagtgcc tggatatcca ggagaaaaag gagatgttgg cttcatgggt 7860
ccccggggcc tcaagggtga acggggagtg aagggagcct gtggccttga tggagagaag 7920
ggagacaagg gagaagctgg tccccaggc cgccccgggc tggcaggaca caaaggagag 7980
atgggggagc ctggtgtgcc gggccagtcg gggggcccctg gcaaggaggg cctgatcgg 8040
cccaagggtg accgaggctt tgacgggcag ccaggcccca agggtgacca gggcgagaaa 8100
ggggagcggg gaaccccagg aattgggggc ttcccaggcc ccagtggaaa tgatggctct 8160
gctggtcccc cagggccacc tggcagtgtt ggtcccagag gccccgaagg acttcagggc 8220
cagaagggtg agcgaggctc ccccgagag agagtgggtg gggctcctgg ggtccctgga 8280
gctcctggcg agagagggga gcaggggcgg ccagggcctg ccggtcctcg aggcgagaag 8340
ggagaagctg cactgacgga ggatgacatc cggggctttg tgcgccaaga gatgagtcag 8400
cactgtgcct gccagggcca gttcatcgca tctggatcac gaccctccc tagttatgct 8460
gcagacactg ccggctccca gctccatgct gtgcctgtgc tccgcgtctc tcatgcagag 8520
gaggaagagc ggggtacccc tgaggatgat gactactctg aatactccga gtattctgtg 8580
gaggagtacc aggaccctga agctccttgg gatagtgatg acccctgttc cctgccactg 8640
gatgagggtc cctgcaactg ctacaccctg cgctggtacc atcgggctgt gacaggcagc 8700
acagaggcct gtcacccttt tgtctatggt ggctgtggag ggaatgcaa ccgttttggg 8760
acccgtgagg cctgcgagcg ccgctgcccc ccccggttgg tccagagcca ggggacaggt 8820
actgcccagg actga 8835

```

<210> 2

<211> 2944

<212> PRT

<213> Homo sapiens

<400> 2

```

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

```

130		135		140	
Ile Leu Ile Thr Asp Gly Lys Ser Gln Asp Leu Val Asp Thr Ala Ala					
145		150		155	160
Gln Arg Leu Lys Gly Gln Gly Val Lys Leu Phe Ala Val Gly Ile Lys					
	165		170		175
Asn Ala Asp Pro Glu Glu Leu Lys Arg Val Ala Ser Gln Pro Thr Ser					
	180		185		190
Asp Phe Phe Phe Phe Val Asn Asp Phe Ser Ile Leu Arg Thr Leu Leu					
	195		200		205
Pro Leu Val Ser Arg Arg Val Cys Thr Thr Ala Gly Gly Val Pro Val					
	210		215		220
Thr Arg Pro Pro Asp Asp Ser Thr Ser Ala Pro Arg Asp Leu Val Leu					
	225		230		235
Ser Glu Pro Ser Ser Gln Ser Leu Arg Val Gln Trp Thr Ala Ala Ser					
	245		250		255
Gly Pro Val Thr Gly Tyr Lys Val Gln Tyr Thr Pro Leu Thr Gly Leu					
	260		265		270
Gly Gln Pro Leu Pro Ser Glu Arg Gln Glu Val Asn Val Pro Ala Gly					
	275		280		285
Glu Thr Ser Val Arg Leu Arg Gly Leu Arg Pro Leu Thr Glu Tyr Gln					
	290		295		300
Val Thr Val Ile Ala Leu Tyr Ala Asn Ser Ile Gly Glu Ala Val Ser					
	305		310		315
Gly Thr Ala Arg Thr Thr Ala Leu Glu Gly Pro Glu Leu Thr Ile Gln					
	325		330		335
Asn Thr Thr Ala His Ser Leu Leu Val Ala Trp Arg Ser Val Pro Gly					
	340		345		350
Ala Thr Gly Tyr Arg Val Thr Trp Arg Val Leu Ser Gly Gly Pro Thr					
	355		360		365
Gln Gln Gln Glu Leu Gly Pro Gly Gln Gly Ser Val Leu Leu Arg Asp					
	370		375		380
Leu Glu Pro Gly Thr Asp Tyr Glu Val Thr Val Ser Thr Leu Phe Gly					
	385		390		395
Arg Ser Val Gly Pro Ala Thr Ser Leu Met Ala Arg Thr Asp Ala Ser					
	405		410		415
Val Glu Gln Thr Leu Arg Pro Val Ile Leu Gly Pro Thr Ser Ile Leu					
	420		425		430
Leu Ser Trp Asn Leu Val Pro Glu Ala Arg Gly Tyr Arg Leu Glu Trp					
	435		440		445
Arg Arg Glu Thr Gly Leu Glu Pro Pro Gln Lys Val Val Leu Pro Ser					
	450		455		460
Asp Val Thr Arg Tyr Gln Leu Asp Gly Leu Gln Pro Gly Thr Glu Tyr					
	465		470		475
Arg Leu Thr Leu Tyr Thr Leu Leu Glu Gly His Glu Val Ala Thr Pro					
	485		490		495
Ala Thr Val Val Pro Thr Gly Pro Glu Leu Pro Val Ser Pro Val Thr					
	500		505		510
Asp Leu Gln Ala Thr Glu Leu Pro Gly Gln Arg Val Arg Val Ser Trp					
	515		520		525
Ser Pro Val Pro Gly Ala Thr Gln Tyr Arg Ile Ile Val Arg Ser Thr					

	530					535					540				
Gln 545	Gly	Val	Glu	Arg	Thr	Leu	Val	Leu	Pro	Gly	Ser	Gln	Thr	Ala	Phe
Asp	Leu	Asp	Asp	Val	Gln	Ala	Gly	Leu	Ser	Tyr	Thr	Val	Arg	Val	Ser
Ala	Arg	Val	Gly	Pro	Arg	Glu	Gly	Ser	Ala	Ser	Val	Leu	Thr	Val	Arg
Arg	Glu	Pro	Glu	Thr	Pro	Leu	Ala	Val	Pro	Gly	Leu	Arg	Val	Val	Val
Ser	Asp	Ala	Thr	Arg	Val	Arg	Val	Ala	Trp	Gly	Pro	Val	Pro	Gly	Ala
Ser 625	Gly	Phe	Arg	Ile	Ser	Trp	Ser	Thr	Gly	Ser	Gly	Pro	Glu	Ser	Ser
Gln	Thr	Leu	Pro	Pro	Asp	Ser	Thr	Ala	Thr	Asp	Ile	Thr	Gly	Leu	Gln
Pro	Gly	Thr	Thr	Tyr	Gln	Val	Ala	Val	Ser	Val	Leu	Arg	Gly	Arg	Glu
Glu	Gly	Pro	Ala	Ala	Val	Ile	Val	Ala	Arg	Thr	Asp	Pro	Leu	Gly	Pro
Val	Arg	Thr	Val	His	Val	Thr	Gln	Ala	Ser	Ser	Ser	Ser	Val	Thr	Ile
Thr 705	Trp	Thr	Arg	Val	Pro	Gly	Ala	Thr	Gly	Tyr	Arg	Val	Ser	Trp	His
Ser	Ala	His	Gly	Pro	Glu	Lys	Ser	Gln	Leu	Val	Ser	Gly	Glu	Ala	Thr
Val	Ala	Glu	Leu	Asp	Gly	Leu	Glu	Pro	Asp	Thr	Glu	Tyr	Thr	Val	His
Val	Arg	Ala	His	Val	Ala	Gly	Val	Asp	Gly	Pro	Pro	Ala	Ser	Val	Val
Val	Arg	Thr	Ala	Pro	Glu	Pro	Val	Gly	Arg	Val	Ser	Arg	Leu	Gln	Ile
Leu 785	Asn	Ala	Ser	Ser	Asp	Val	Leu	Arg	Ile	Thr	Trp	Val	Gly	Val	Thr
Gly	Ala	Thr	Ala	Tyr	Arg	Leu	Ala	Trp	Gly	Arg	Ser	Glu	Gly	Gly	Pro
Met	Arg	His	Gln	Ile	Leu	Pro	Gly	Asn	Thr	Asp	Ser	Ala	Glu	Ile	Arg
Gly	Leu	Glu	Gly	Gly	Val	Ser	Tyr	Ser	Val	Arg	Val	Thr	Ala	Leu	Val
Gly	Asp	Arg	Glu	Gly	Thr	Pro	Val	Ser	Ile	Val	Val	Thr	Thr	Pro	Pro
Glu 865	Ala	Pro	Pro	Ala	Leu	Gly	Thr	Leu	His	Val	Val	Gln	Arg	Gly	Glu
His	Ser	Leu	Arg	Leu	Arg	Trp	Glu	Pro	Val	Pro	Arg	Ala	Gln	Gly	Phe
Leu	Leu	His	Trp	Gln	Pro	Glu	Gly	Gly	Gln	Glu	Gln	Ser	Arg	Val	Leu
Gly	Pro	Glu	Leu	Ser	Ser	Tyr	His	Leu	Asp	Gly	Leu	Glu	Pro	Ala	Thr
Gln	Tyr	Arg	Val	Arg	Leu	Ser	Val	Leu	Gly	Pro	Ala	Gly	Glu	Gly	Pro

930		935		940
Ser Ala Glu Val Thr	Ala Arg Thr Glu Ser	Pro Arg Val Pro Ser Ile		
945	950	955		960
Glu Leu Arg Val Val	Asp Thr Ser Ile Asp	Ser Val Thr Leu Ala Trp		
	965	970		975
Thr Pro Val Ser Arg	Ala Ser Ser Tyr Ile	Leu Ser Trp Arg Pro Leu		
	980	985		990
Arg Gly Pro Gly Gln	Glu Val Pro Gly Ser	Pro Gln Thr Leu Pro Gly		
	995	1000		1005
Ile Ser Ser Ser Gln	Arg Val Thr Gly Leu	Glu Pro Gly Val Ser Tyr		
	1010	1015		1020
Ile Phe Ser Leu Thr	Pro Val Leu Asp Gly	Val Arg Gly Pro Glu Ala		
1025	1030	1035		1040
Ser Val Thr Gln Thr	Pro Val Cys Pro Arg	Gly Leu Ala Asp Val Val		
	1045	1050		1055
Phe Leu Pro His Ala	Thr Gln Asp Asn Ala	His Arg Ala Glu Ala Thr		
	1060	1065		1070
Arg Arg Val Leu Glu	Arg Leu Val Leu Ala	Leu Gly Pro Leu Gly Pro		
	1075	1080		1085
Gln Ala Val Gln Val	Gly Leu Leu Ser Tyr	Ser His Arg Pro Ser Pro		
	1090	1095		1100
Leu Phe Pro Leu Asn	Gly Ser His Asp Leu	Gly Ile Ile Leu Gln Arg		
1105	1110	1115		1120
Ile Arg Asp Met Pro	Tyr Met Asp Pro Ser	Gly Asn Asn Leu Gly Thr		
	1125	1130		1135
Ala Val Val Thr Ala	His Arg Tyr Met Leu	Ala Pro Asp Ala Pro Gly		
	1140	1145		1150
Arg Arg Gln His Val	Pro Gly Val Met Val	Leu Leu Val Asp Glu Pro		
	1155	1160		1165
Leu Arg Gly Asp Ile	Phe Ser Pro Ile Arg	Glu Ala Gln Ala Ser Gly		
	1170	1175		1180
Leu Asn Val Val Met	Leu Gly Met Ala Gly	Ala Asp Pro Glu Gln Leu		
1185	1190	1195		1200
Arg Arg Leu Ala Pro	Gly Met Asp Ser Val	Gln Thr Phe Phe Ala Val		
	1205	1210		1215
Asp Asp Gly Pro Ser	Leu Asp Gln Ala Val	Ser Gly Leu Ala Thr Ala		
	1220	1225		1230
Leu Cys Gln Ala Ser	Phe Thr Thr Gln Pro	Arg Pro Glu Pro Cys Pro		
	1235	1240		1245
Val Tyr Cys Pro Lys	Gly Gln Lys Gly Glu	Pro Gly Glu Met Gly Leu		
	1250	1255		1260
Arg Gly Gln Val Gly	Pro Pro Gly Asp Pro	Gly Leu Pro Gly Arg Thr		
1265	1270	1275		1280
Gly Ala Pro Gly Pro	Gln Gly Pro Pro Gly	Ser Ala Thr Ala Lys Gly		
	1285	1290		1295
Glu Arg Gly Phe Pro	Gly Ala Asp Gly Arg	Pro Gly Ser Pro Gly Arg		
	1300	1305		1310
Ala Gly Asn Pro Gly	Thr Pro Gly Ala Pro	Gly Leu Lys Gly Ser Pro		
	1315	1320		1325
Gly Leu Pro Gly Pro	Arg Gly Asp Pro Gly	Glu Arg Gly Pro Arg Gly		

1330	1335	1340
Pro Lys Gly Glu Pro Gly Ala Pro Gly Gln Val Ile Gly Gly Glu Gly		
1345	1350	1355
Pro Gly Leu Pro Gly Arg Lys Gly Asp Pro Gly Pro Ser Gly Pro Pro		1360
	1365	1370
Gly Pro Arg Gly Pro Leu Gly Asp Pro Gly Pro Arg Gly Pro Pro Gly		1375
	1380	1385
Leu Pro Gly Thr Ala Met Lys Gly Asp Lys Gly Asp Arg Gly Glu Arg		1390
	1395	1400
Gly Pro Pro Gly Pro Gly Glu Gly Gly Ile Ala Pro Gly Glu Pro Gly		1405
	1410	1415
Leu Pro Gly Leu Pro Gly Ser Pro Gly Pro Gln Gly Pro Val Gly Pro		1420
1425	1430	1435
Pro Gly Lys Lys Gly Glu Lys Gly Asp Ser Glu Asp Gly Ala Pro Gly		1440
	1445	1450
Leu Pro Gly Gln Pro Gly Ser Pro Gly Glu Gln Gly Pro Arg Gly Pro		1455
	1460	1465
Pro Gly Ala Ile Gly Pro Lys Gly Asp Arg Gly Phe Pro Gly Pro Leu		1470
	1475	1480
Gly Glu Ala Gly Glu Lys Gly Glu Arg Gly Pro Pro Gly Pro Ala Gly		1485
	1490	1495
Ser Arg Gly Leu Pro Gly Val Ala Gly Arg Pro Gly Ala Lys Gly Pro		1500
1505	1510	1515
Glu Gly Pro Pro Gly Pro Thr Gly Arg Gln Gly Glu Lys Gly Glu Pro		1520
	1525	1530
Gly Arg Pro Gly Asp Pro Ala Val Val Gly Pro Ala Val Ala Gly Pro		1535
	1540	1545
Lys Gly Glu Lys Gly Asp Val Gly Pro Ala Gly Pro Arg Gly Ala Thr		1550
	1555	1560
Gly Val Gln Gly Glu Arg Gly Pro Pro Gly Leu Val Leu Pro Gly Asp		1565
	1570	1575
Pro Gly Pro Lys Gly Asp Pro Gly Asp Arg Gly Pro Ile Gly Leu Thr		1580
1585	1590	1595
Gly Arg Ala Gly Pro Pro Gly Asp Ser Gly Pro Pro Gly Glu Lys Gly		1600
	1605	1610
Asp Pro Gly Arg Pro Gly Pro Pro Gly Pro Val Gly Pro Arg Gly Arg		1615
	1620	1625
Asp Gly Glu Val Gly Glu Lys Gly Asp Glu Gly Pro Pro Gly Asp Pro		1630
	1635	1640
Gly Leu Pro Gly Lys Ala Gly Glu Arg Gly Leu Arg Gly Ala Pro Gly		1645
	1650	1655
Val Arg Gly Pro Val Gly Glu Lys Gly Asp Gln Gly Asp Pro Gly Glu		1660
1665	1670	1675
Asp Gly Arg Asn Gly Ser Pro Gly Ser Ser Gly Pro Lys Gly Asp Arg		1680
	1685	1690
Gly Glu Pro Gly Pro Pro Gly Pro Pro Gly Arg Leu Val Asp Thr Gly		1695
	1700	1705
Pro Gly Ala Arg Glu Lys Gly Glu Pro Gly Asp Arg Gly Gln Glu Gly		1710
	1715	1720
Pro Arg Gly Pro Lys Gly Asp Pro Gly Leu Pro Gly Ala Pro Gly Glu		1725

1730	1735	1740
Arg Gly Ile Glu Gly Phe Arg Gly Pro Pro Gly Pro Gln Gly Asp Pro		
1745	1750	1755
Gly Val Arg Gly Pro Ala Gly Glu Lys Gly Asp Arg Gly Pro Pro Gly		
1765	1770	1775
Leu Asp Gly Arg Ser Gly Leu Asp Gly Lys Pro Gly Ala Ala Gly Pro		
1780	1785	1790
Ser Gly Pro Asn Gly Ala Ala Gly Lys Ala Gly Asp Pro Gly Arg Asp		
1795	1800	1805
Gly Leu Pro Gly Leu Arg Gly Glu Gln Gly Leu Pro Gly Pro Ser Gly		
1810	1815	1820
Pro Pro Gly Leu Pro Gly Lys Pro Gly Glu Asp Gly Lys Pro Gly Leu		
1825	1830	1835
Asn Gly Lys Asn Gly Glu Pro Gly Asp Pro Gly Glu Asp Gly Arg Lys		
1845	1850	1855
Gly Glu Lys Gly Asp Ser Gly Ala Ser Gly Arg Glu Gly Arg Asp Gly		
1860	1865	1870
Pro Lys Gly Glu Arg Gly Ala Pro Gly Ile Leu Gly Pro Gln Gly Pro		
1875	1880	1885
Pro Gly Leu Pro Gly Pro Val Gly Pro Pro Gly Gln Gly Phe Pro Gly		
1890	1895	1900
Val Pro Gly Gly Thr Gly Pro Lys Gly Asp Arg Gly Glu Thr Gly Ser		
1905	1910	1915
Lys Gly Glu Gln Gly Leu Pro Gly Glu Arg Gly Leu Arg Gly Glu Pro		
1925	1930	1935
Gly Ser Val Pro Asn Val Asp Arg Leu Leu Glu Thr Ala Gly Ile Lys		
1940	1945	1950
Ala Ser Ala Leu Arg Glu Ile Val Glu Thr Trp Asp Glu Ser Ser Gly		
1955	1960	1965
Ser Phe Leu Pro Val Pro Glu Arg Arg Arg Gly Pro Lys Gly Asp Ser		
1970	1975	1980
Gly Glu Gln Gly Pro Pro Gly Lys Glu Gly Pro Ile Gly Phe Pro Gly		
1985	1990	1995
Glu Arg Gly Leu Lys Gly Asp Arg Gly Asp Pro Gly Pro Gln Gly Pro		
2005	2010	2015
Pro Gly Leu Ala Leu Gly Glu Arg Gly Pro Pro Gly Pro Ser Gly Leu		
2020	2025	2030
Ala Gly Glu Pro Gly Lys Pro Gly Ile Pro Gly Leu Pro Gly Arg Ala		
2035	2040	2045
Gly Gly Val Gly Glu Ala Gly Arg Pro Gly Glu Arg Gly Glu Arg Gly		
2050	2055	2060
Glu Lys Gly Glu Arg Gly Glu Gln Gly Arg Asp Gly Pro Pro Gly Leu		
2065	2070	2075
Pro Gly Thr Pro Gly Pro Pro Gly Pro Pro Gly Pro Lys Val Ser Val		
2085	2090	2095
Asp Glu Pro Gly Pro Gly Leu Ser Gly Glu Gln Gly Pro Pro Gly Leu		
2100	2105	2110
Lys Gly Ala Lys Gly Glu Pro Gly Ser Asn Gly Asp Gln Gly Pro Lys		
2115	2120	2125
Gly Asp Arg Gly Val Pro Gly Ile Lys Gly Asp Arg Gly Glu Pro Gly		

2130	2135	2140
Pro Arg Gly Gln Asp Gly Asn Pro Gly Leu Pro Gly Glu Arg Gly Met		
2145	2150	2155
Ala Gly Pro Glu Gly Lys Pro Gly Leu Gln Gly Pro Arg Gly Pro Pro		2160
	2165	2170
Gly Pro Val Gly Gly His Gly Asp Pro Gly Pro Pro Gly Ala Pro Gly		2175
	2180	2185
Leu Ala Gly Pro Ala Gly Pro Gln Gly Pro Ser Gly Leu Lys Gly Glu		2190
	2195	2200
Pro Gly Glu Thr Gly Pro Pro Gly Arg Gly Leu Thr Gly Pro Thr Gly		2205
	2210	2215
Ala Val Gly Leu Pro Gly Pro Pro Gly Pro Ser Gly Leu Val Gly Pro		2220
	2225	2230
Gln Gly Ser Pro Gly Leu Pro Gly Gln Val Gly Glu Thr Gly Lys Pro		2235
	2245	2250
Gly Ala Pro Gly Arg Asp Gly Ala Ser Gly Lys Asp Gly Asp Arg Gly		2255
	2260	2265
Ser Pro Gly Val Pro Gly Ser Pro Gly Leu Pro Gly Pro Val Gly Pro		2270
	2275	2280
Lys Gly Glu Pro Gly Pro Thr Gly Ala Pro Gly Gln Ala Val Val Gly		2285
	2290	2295
Leu Pro Gly Ala Lys Gly Glu Lys Gly Ala Pro Gly Gly Leu Ala Gly		2300
	2305	2310
Asp Leu Val Gly Glu Pro Gly Ala Lys Gly Asp Arg Gly Leu Pro Gly		2315
	2325	2330
Pro Arg Gly Glu Lys Gly Glu Ala Gly Arg Ala Gly Glu Pro Gly Asp		2320
	2340	2345
Pro Gly Glu Asp Gly Gln Lys Gly Ala Pro Gly Pro Lys Gly Phe Lys		2335
	2355	2360
Gly Asp Pro Gly Val Gly Val Pro Gly Ser Pro Gly Pro Pro Gly Pro		2365
	2370	2375
Pro Gly Val Lys Gly Asp Leu Gly Leu Pro Gly Leu Pro Gly Ala Pro		2380
	2385	2390
Gly Val Val Gly Phe Pro Gly Gln Thr Gly Pro Arg Gly Glu Met Gly		2395
	2405	2410
Gln Pro Gly Pro Ser Gly Glu Arg Gly Leu Ala Gly Pro Pro Gly Arg		2415
	2420	2425
Glu Gly Ile Pro Gly Pro Leu Gly Pro Pro Gly Pro Pro Gly Ser Val		2430
	2435	2440
Gly Pro Pro Gly Ala Ser Gly Leu Lys Gly Asp Lys Gly Asp Pro Gly		2445
	2450	2455
Val Gly Leu Pro Gly Pro Arg Gly Glu Arg Gly Glu Pro Gly Ile Arg		2460
	2465	2470
Gly Glu Asp Gly Arg Pro Gly Gln Glu Gly Pro Arg Gly Leu Thr Gly		2475
	2485	2490
Pro Pro Gly Ser Arg Gly Glu Arg Gly Glu Lys Gly Asp Val Gly Ser		2495
	2500	2505
Ala Gly Leu Lys Gly Asp Lys Gly Asp Ser Ala Val Ile Leu Gly Pro		2510
	2515	2520
Pro Gly Pro Arg Gly Ala Lys Gly Asp Met Gly Glu Arg Gly Pro Arg		2525

2530	2535	2540
Gly Leu Asp Gly Asp Lys Gly Pro Arg Gly Asp Asn Gly Asp Pro Gly		
2545	2550	2555
Asp Lys Gly Ser Lys Gly Glu Pro Gly Asp Lys Gly Ser Ala Gly Leu		2560
	2565	2570
Pro Gly Leu Arg Gly Leu Leu Gly Pro Gln Gly Gln Pro Gly Ala Ala		2575
	2580	2585
Gly Ile Pro Gly Asp Pro Gly Ser Pro Gly Lys Asp Gly Val Pro Gly		2590
	2595	2600
Ile Arg Gly Glu Lys Gly Asp Val Gly Phe Met Gly Pro Arg Gly Leu		2605
	2610	2615
Lys Gly Glu Arg Gly Val Lys Gly Ala Cys Gly Leu Asp Gly Glu Lys		2620
2625	2630	2635
Gly Asp Lys Gly Glu Ala Gly Pro Pro Gly Arg Pro Gly Leu Ala Gly		2640
	2645	2650
His Lys Gly Glu Met Gly Glu Pro Gly Val Pro Gly Gln Ser Gly Ala		2655
	2660	2665
Pro Gly Lys Glu Gly Leu Ile Gly Pro Lys Gly Asp Arg Gly Phe Asp		2670
	2675	2680
Gly Gln Pro Gly Pro Lys Gly Asp Gln Gly Glu Lys Gly Glu Arg Gly		2685
	2690	2695
Thr Pro Gly Ile Gly Gly Phe Pro Gly Pro Ser Gly Asn Asp Gly Ser		2700
2705	2710	2715
Ala Gly Pro Pro Gly Pro Pro Gly Ser Val Gly Pro Arg Gly Pro Glu		2720
	2725	2730
Gly Leu Gln Gly Gln Lys Gly Glu Arg Gly Pro Pro Gly Glu Arg Val		2735
	2740	2745
Val Gly Ala Pro Gly Val Pro Gly Ala Pro Gly Glu Arg Gly Glu Gln		2750
	2755	2760
Gly Arg Pro Gly Pro Ala Gly Pro Arg Gly Glu Lys Gly Glu Ala Ala		2765
	2770	2775
Leu Thr Glu Asp Asp Ile Arg Gly Phe Val Arg Gln Glu Met Ser Gln		2780
2785	2790	2795
His Cys Ala Cys Gln Gly Gln Phe Ile Ala Ser Gly Ser Arg Pro Leu		2800
	2805	2810
Pro Ser Tyr Ala Ala Asp Thr Ala Gly Ser Gln Leu His Ala Val Pro		2815
	2820	2825
Val Leu Arg Val Ser His Ala Glu Glu Glu Glu Arg Val Pro Pro Glu		2830
	2835	2840
Asp Asp Glu Tyr Ser Glu Tyr Ser Glu Tyr Ser Val Glu Glu Tyr Gln		2845
	2850	2855
Asp Pro Glu Ala Pro Trp Asp Ser Asp Asp Pro Cys Ser Leu Pro Leu		2860
2865	2870	2875
Asp Glu Gly Ser Cys Thr Ala Tyr Thr Leu Arg Trp Tyr His Arg Ala		2880
	2885	2890
Val Thr Gly Ser Thr Glu Ala Cys His Pro Phe Val Tyr Gly Gly Cys		2895
	2900	2905
Gly Gly Asn Ala Asn Arg Phe Gly Thr Arg Glu Ala Cys Glu Arg Arg		2910
	2915	2920
Cys Pro Pro Arg Val Val Gln Ser Gln Gly Thr Gly Thr Ala Gln Asp		2925

2930

2935

2940

<210> 3

<211> 2217

<212> DNA

<213> Homo sapiens

<400> 3

```

atgacctcct cggggcctgg accccgggtc ctgctgctgc tgccgctgct gctgccccct 60
gcggcctcag cctccgaccg gccccggggc cgagacccgg tcaacccaga gaagctgctg 120
gtgatcactg tggccacagc tgaaaccgag ggggtacctgc gtttcctgcg ctctgcggag 180
ttcttcaact acactgtgcg gaccctgggc ctgggagagg agtggcgagg gggtgatgtg 240
gctcgaacag ttggtggagg acagaagggtc cgggtggtaa agaaggaaat ggagaaatac 300
gctgaccggg aggatatgat catcatgttt gtggatagct acgacgtgat tctggccggc 360
agccccacag agctgctgaa gaagtctgtc cagagtggca gccgcctgct cttctctgca 420
gagagcttct gctggccccg gtgggggctg gcggagcagt accctgaggt gggcacgggg 480
aagcgcttcc tcaattctgg tggattcatc ggttttgcca ccaccatcca ccaaactcgtg 540
cgccagtgga agtacaagga tgatgacgac gaccagctgt tctacacacg gctctacctg 600
gacccaggac tgagggagaa actcagcctt aatctggatc ataagtctcg gatctttcag 660
aacctcaacg gggctttaga tgaagtgggt ttaaagtgtg atcggaacgg tgtgcgtatc 720
cggaacgtgg cctacgacac gctccccatt gtggtccatg gaaacggccc cactaagctg 780
cagctcaact acctgggaaa ctacgtcccc aatggctgga ctctgagggg aggctgtggc 840
ttctgcaacc aggaccggag gacactcccc ggggggcagc ctcccccccg ggtgtttctg 900
gccgtgtttg tggaacagcc tactccgttt ctgccccgct tcctgcagcg gctgctactc 960
ctggactatc cccccgacag ggtcaccctt ttcctgcaca acaacgaggt cttccatgaa 1020
ccccacatcg ctgactcctg gccgcagctc caggaccact tctcagctgt gaagctcgtg 1080
gggcccggagg aggctctgag cccaggcgag gccagggaca tggccatgga cctgtgtcgg 1140
caggaccccc agtgtgagtt ctacttcagc ctggacgccg acgctgtcct caccaacctg 1200
cagacctgct gtatcctcat tgaggagaac aggaagggtg tgcccccat gctgtcccg 1260
cacggcaagc tgtgggtcaa cttctggggc gccctgagcc ccgatgagta ctacggccgc 1320
tccgaggact acgtggagct ggtgcagcgg aagcgagtgg gtgtgtggaa tgtaccatac 1380
atctcccagg cctatgtgat ccgggggtgat accctgcgga tggagctgcc ccagagggat 1440
gtgttctcgg gcagtgacac agacccggac atggccttct gtaagagctt tcgagacaag 1500
ggcatcttcc tccatctgag caatcagcat gaatttggcc ggctcctggc cacttccaga 1560
tacgacacgg agcacctgca ccccgacctc tggcagatct tcgacaaccc cgtcgactgg 1620
aaggagcagt acatccacga gaactacagc cgggccctgg aaggggaagg aatcgtggag 1680
cagccatgcc cggacgtgta ctggttccca ctgctgtcag aacaaatgtg tgatgagctg 1740
gtggcagaga tggagcacta cggccagtgg tcaggcggcc ggcatgagga ttcaaggctg 1800
gctggagggt acgagaatgt gcccaccgtg gacatccaca tgaagcaggt ggggtacgag 1860
gaccagtggc tgcagctgct gcggacgtat gtgggcccc a tgaccgagag cctgtttccc 1920
ggttaccaca ccaaggcgcg ggcggtgatg aactttgtgg ttcgctaccg gccagacgag 1980
cagccgtctc tgcggccaca ccacgactca tccaccttca ccctcaacgt tgccctcaac 2040
cacaagggcc tggactatga gggaggtggc tgccgcttcc tgcgctacga ctgtgtgatc 2100
tcctccccga ggaagggtg ggcactcctg caccggcc gcctcaccca ctaccacgag 2160
gggctgcaaa cgacctgggg cacacgctac atcatgggtg ctttgtcga cccctga 2217

```

<210> 4

<211> 738

<212> PRT

<213> Homo sapiens

<400> 4

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

370		375		380	
Cys Glu Phe Tyr Phe Ser Leu Asp Ala Asp Ala Val Leu Thr Asn Leu					
385		390		395	400
Gln Thr Leu Arg Ile Leu Ile Glu Glu Asn Arg Lys Val Ile Ala Pro					
	405		410		415
Met Leu Ser Arg His Gly Lys Leu Trp Ser Asn Phe Trp Gly Ala Leu					
	420		425		430
Ser Pro Asp Glu Tyr Tyr Ala Arg Ser Glu Asp Tyr Val Glu Leu Val					
	435		440		445
Gln Arg Lys Arg Val Gly Val Trp Asn Val Pro Tyr Ile Ser Gln Ala					
	450		455		460
Tyr Val Ile Arg Gly Asp Thr Leu Arg Met Glu Leu Pro Gln Arg Asp					
465		470		475	480
Val Phe Ser Gly Ser Asp Thr Asp Pro Asp Met Ala Phe Cys Lys Ser					
	485		490		495
Phe Arg Asp Lys Gly Ile Phe Leu His Leu Ser Asn Gln His Glu Phe					
	500		505		510
Gly Arg Leu Leu Ala Thr Ser Arg Tyr Asp Thr Glu His Leu His Pro					
	515		520		525
Asp Leu Trp Gln Ile Phe Asp Asn Pro Val Asp Trp Lys Glu Gln Tyr					
	530		535		540
Ile His Glu Asn Tyr Ser Arg Ala Leu Glu Gly Glu Gly Ile Val Glu					
545		550		555	560
Gln Pro Cys Pro Asp Val Tyr Trp Phe Pro Leu Leu Ser Glu Gln Met					
	565		570		575
Cys Asp Glu Leu Val Ala Glu Met Glu His Tyr Gly Gln Trp Ser Gly					
	580		585		590
Gly Arg His Glu Asp Ser Arg Leu Ala Gly Gly Tyr Glu Asn Val Pro					
	595		600		605
Thr Val Asp Ile His Met Lys Gln Val Gly Tyr Glu Asp Gln Trp Leu					
	610		615		620
Gln Leu Leu Arg Thr Tyr Val Gly Pro Met Thr Glu Ser Leu Phe Pro					
625		630		635	640
Gly Tyr His Thr Lys Ala Arg Ala Val Met Asn Phe Val Val Arg Tyr					
	645		650		655
Arg Pro Asp Glu Gln Pro Ser Leu Arg Pro His His Asp Ser Ser Thr					
	660		665		670
Phe Thr Leu Asn Val Ala Leu Asn His Lys Gly Leu Asp Tyr Glu Gly					
	675		680		685
Gly Gly Cys Arg Phe Leu Arg Tyr Asp Cys Val Ile Ser Ser Pro Arg					
	690		695		700
Lys Gly Trp Ala Leu Leu His Pro Gly Arg Leu Thr His Tyr His Glu					
705		710		715	720
Gly Leu Pro Thr Thr Trp Gly Thr Arg Tyr Ile Met Val Ser Phe Val					
	725		730		735
Asp Pro					

<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 5
agggccaaga ggggcagcgg cgagggcagg ggcagcctgc tgacctgcgg cgacgtggag 60
gagaaccccc gccccc 75

<210> 6
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 6
Arg Ala Lys Arg Gly Ser Gly Glu Gly Arg Gly Ser Leu Leu Thr Cys
1 5 10 15
Gly Asp Val Glu Glu Asn Pro Gly Pro
20 25

<210> 7
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 7
ggaagcggag ctactaactt cagcctgctg aagcaggctg gagacgtgga ggagaaccct 60
ggacct 66

<210> 8
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 8
Gly Ser Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val
1 5 10 15
Glu Glu Asn Pro Gly Pro

<210> 9
 <211> 69
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 9
 ggaagcggac agtgtactaa ttatgctctc ttgaaattgg ctggagatgt tgagagcaac 60
 cctggacct 69

<210> 10
 <211> 23
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 10
 Gly Ser Gly Gln Cys Thr Asn Tyr Ala Leu Leu Lys Leu Ala Gly Asp
 1 5 10 15
 Val Glu Ser Asn Pro Gly Pro
 20

<210> 11
 <211> 75
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 11
 ggaagcggag tgaaacagac tttgaatttt gaccttctca agttggcggg agacgtggag 60
 tccaaccctg gacct 75

<210> 12
 <211> 25
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 12

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

<210> 13

<211> 11121

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 13

atgacgctgc	ggcttctggt	ggccgcgctc	tgcgccggga	tcctggcaga	ggcgccccga	60
gtgcgagccc	agcacaggga	gagagtgacc	tgcacgcgcc	tttacgccgc	tgacattgtg	120
ttcttactgg	atggctcctc	atccattggc	cgcagcaatt	tccgcgaggt	ccgcagcttt	180
ctcgaagggc	tgggtgctgcc	tttctctgga	gcagccagtg	cacagggtgt	gcgctttgcc	240
acagtgcagt	acagcgatga	cccacggaca	gagttcggcc	tggatgcact	tggctctggg	300
ggtgatgtga	tccgcgccat	ccgtgagctt	agctacaagg	ggggcaacac	tcgcacaggg	360
gctgcaattc	tccatgtggc	tgaccatgtc	ttcctgcccc	agctggcccc	acctggtgtc	420
cccaaggctc	gcatcctgat	cacagacggg	aagtcccagg	acctggtgga	cacagctgcc	480
caaaggctga	aggggcaggg	ggtcaagcta	tttgctgtgg	ggatcaagaa	tgctgaccct	540
gaggagctga	agcgagttgc	ctcacagccc	accagtgact	tcttcttctt	cgtaaatgac	600
ttcagcatct	tgaggacact	actgcccctc	gtttcccggga	gagtgtgcac	gactgctggt	660
ggcgtgcctg	tgaccgcacc	tccggatgac	tcgacctctg	ctccacgaga	cctggtgctg	720
tctgagccaa	gcagccaatc	cttgagagta	cagtggacag	cggccagtgg	ccctgtgact	780
ggctacaagg	tccagtacac	tcctctgacg	gggctgggac	agccactgcc	gagtgagcgg	840
caggagggtga	acgtcccagc	tggtgagacc	agtgtgcggc	tgcggggtct	ccggccactg	900
accgagtacc	aagtgactgt	gattgccctc	tacgccaaaca	gcatcgggga	ggctgtgagc	960
gggacagctc	ggaccactgc	cctagaaggg	ccggaactga	ccatccagaa	taccacagcc	1020
cacagcctcc	tgggtggcctg	gcggagtggt	ccagggtgcca	ctggctaccg	tgtgacatgg	1080
cgggtcctca	gtggtggggc	cacacagcag	caggagctgg	gccctgggca	gggttcagtg	1140
ttgctgcgtg	acttgagacc	tggcacggac	tatgaggtga	ccgtgagcac	cctatttggc	1200
cgcagtgtgg	ggcccgccac	ttccctgatg	gctcgcactg	acgcttctgt	tgagcagacc	1260
ctgcgcccgg	tcatcctggg	ccccacatcc	atcctccttt	cctggaactt	ggtgcctgag	1320
gcccgtggct	accggttgga	atggcggcgt	gagactggct	tggagccacc	gcagaagggtg	1380
gtactgccct	ctgatgtgac	ccgctaccag	ttggatgggc	tgcagccggg	cactgagtac	1440
cgcctcacac	tctacactct	gctggagggc	cacgagggtg	ccaccctgc	aaccgtggtt	1500
cccactggac	cagagctgcc	tgtgagccct	gtaacagacc	tgcaagccac	cgagctgccc	1560
gggcagcggg	tgcgagtgtc	ctggagccca	gtccctgggt	ccaccagta	ccgcatcatt	1620
gtgcgcagca	cccagggggg	tgagcggacc	ctggtgcttc	ctgggagtca	gacagcattc	1680
gacttggatg	acgttcaggc	tgggcttagc	tacactgtgc	gggtgtctgc	tcgagtgggt	1740
ccccgtgagg	gcagtgccag	tgtcctcact	gtccgccggg	agccggaaac	tccacttgct	1800
gttccagggc	tgcgggttgt	ggtgtcagat	gcaacgcgag	tgagggtggc	ctggggaccc	1860
gtccctggag	ccagtggatt	tcggattagc	tggagcacag	gcagtgggtc	ggagtccagc	1920
cagacactgc	ccccagactc	tactgccaca	gacatcacag	ggctgcagcc	tgggaaccacc	1980
taccagggtg	ctgtgtcggt	actgcgaggc	agagaggagg	gccctgctgc	agtcacgtg	2040

gctcgaacgg	accactggg	cccagtgagg	acgggtccatg	tgactcaggc	cagcagctca	2100
tctgtcacca	ttacctggac	cagggttcct	ggcgccacag	gatacagggt	ttcctggcac	2160
tcagcccacg	gcccagagaa	atcccagttg	gtttctgggg	aggccacggg	ggctgagctg	2220
gatggactgg	agccagatac	tgagtatacg	gtgcatgtga	gggcccattg	ggctggcgtg	2280
gatgggcccc	ctgcctctgt	ggttgtgagg	actgcccctg	agcctgtggg	tcgtgtgtcg	2340
aggctgcaga	tcctcaatgc	ttccagcgac	gttctacgga	tcacctgggt	aggggtcact	2400
ggagccacag	cttacagact	ggcctggggc	cggagtgaag	gcggccccat	gaggcaccag	2460
atactcccag	gaaacacaga	ctctgcagag	atccgggggtc	tcgaagggtg	agtcagctac	2520
tcagtgcgag	tgactgcact	tgtcggggac	cgcgagggca	cacctgtctc	cattgttgtc	2580
actacgccgc	ctgaggctcc	gccagccctg	gggacgcttc	acgtgggtgca	gcgcggggag	2640
cactcgctga	ggctgcgctg	ggagccgggtg	cccagagcgc	agggcttcct	tctgcaactg	2700
caacctgagg	gtggccagga	acagtcccgg	gtcctggggc	ccgagctcag	cagctatcac	2760
ctggacgggc	tggagccagc	gacacagtac	cgcgtgaggc	tgagtgtcct	agggccagct	2820
ggagaagggc	cctctgcaga	ggtgactgcg	cgcactgagt	cacctcgtgt	tccaagcatt	2880
gaactacgtg	tgggtggacac	ctcgatcgac	tcggtgactt	tggcctggac	tccagtgtcc	2940
agggcatcca	gctacatcct	atcctggcgg	ccactcagag	gccctggcca	ggaagtgcct	3000
gggtccccgc	agacacttcc	agggatctca	agctcccagc	gggtgacagg	gctagagcct	3060
ggcgtctctt	acatcttctc	cctgacgcct	gtcctggatg	gtgtgcgggg	tcctgaggca	3120
tctgtcacac	agacgccagt	gtgccccgt	ggcctggcgg	atgtgggtgt	cctaccacat	3180
gccactcaag	acaatgctca	ccgtgcggag	gctacgagga	gggtcctgga	gcgtctgggtg	3240
ttggcacttg	ggcctcttgg	gccacaggca	gttcagggtg	gcctgctgtc	ttacagtcac	3300
cggccctccc	cactgttccc	actgaatggc	tcccatgacc	ttggcattat	cttgcaaaagg	3360
atccgtgaca	tgccctacat	ggacccaagt	gggaacaacc	tgggcacagc	cgtgggtcaca	3420
gctcacagat	acatgttggc	accagatgct	cctgggcgcc	gccagcacgt	accaggggtg	3480
atggttctgc	tagtggtgga	acccttgaga	ggtgacatat	tcagccccat	ccgtgaggcc	3540
caggcttctg	ggcttaaatgt	ggtgatgttg	ggaatggctg	gagcggaccc	agagcagctg	3600
cgtcgcttgg	cgccgggtat	ggactctgtc	cagaccttct	tcgccgtgga	tgatgggcca	3660
agcctggacc	aggcagtcag	tggcttgggc	acagccctgt	gtcaggcatc	cttcactact	3720
cagccccggc	cagagccctg	cccagtgtat	tgtccaaaagg	gccagaaggg	ggaacctgga	3780
gagatgggcc	tgagaggaca	agttgggcct	cctggcgacc	ctggcctccc	gggcaggacc	3840
ggtgctcccc	gcccccaggg	gccccctgga	agtgccactg	ccaagggcga	gaggggcttc	3900
cctggagcag	atgggcgtcc	aggcagccct	ggccgcgccg	ggaatcctgg	gacccttggga	3960
gccccctggc	taaaagggtc	tccagggttg	cctggccctc	gtggggaccc	gggagagcga	4020
ggacctcgag	gccccaaaggg	ggagccggggg	gctcccggac	aagtcatcgg	aggtgaagga	4080
cctgggcttc	ctgggcggaa	aggggaccct	ggaccatcgg	gccccctgg	acctcgtgga	4140
ccactggggg	accaggacc	ccgtggcccc	ccagggttct	ctggaacagc	catgaagggt	4200
gacaaaaggc	atcgtgggga	gcgggggtccc	cctggaccag	gtgaagggtg	cattgtcctc	4260
ggggagcctg	ggctgccggg	tcttcccggga	agccctggac	cccaaggccc	cgttggcccc	4320
cctggaaaaga	aaggagaaaa	aggtgactct	gaggatggag	ctccaggcct	cccaggacaa	4380
cctgggtctc	cgggtgagca	gggcccacgg	ggacctcctg	gagctatttg	cccaaaaggt	4440
gaccggggct	ttccaggggc	cctgggtgag	gctggagaga	agggcgaacg	tggacccccca	4500
ggcccagcgg	gatcccgggg	gctgccaggg	gttgctggac	gtcctggagc	caagggtcct	4560
gaagggccac	caggaccac	tggccgcaa	ggagagaagg	gggagcctgg	tcgccctggg	4620
gacctgcag	tgggtgggac	tgtgttgct	ggacccaaag	gagaaaagg	agatgtgggg	4680
cccgtggggc	ccagaggagc	taccggagtc	caaggggaac	ggggccacc	cggcttgggt	4740
cttcctggag	accctggccc	caaggagac	cctggagacc	gggtcccat	tggccttact	4800
ggcagagcag	gacccccagg	tgactcagg	cctcctggag	agaagggaga	ccctgggcgg	4860
cctggcccc	caggacctgt	tggccccga	ggacgagatg	gtgaagttgg	agagaaaggt	4920
gacgagggtc	ctccgggtga	cccgggttg	cctggaaaag	caggcgagcg	tggccttcgg	4980
ggggcacctg	gagttcgggg	gcctgtgggt	gaaaaggag	accagggaga	tcctggagag	5040

gatggacgaa	atggcagccc	tggatcatct	ggacccaagg	gtgaccgtgg	ggagccgggt	5100
ccccaggac	ccccgggacg	gctggtagac	acaggacctg	gagccagaga	gaagggagag	5160
cctggggacc	gcggacaaga	gggtcctcga	gggcccagg	gtgatcctgg	cctccctgga	5220
ggccctgggg	aaaggggcat	tgaagggttt	cggggacccc	caggcccaca	gggggaccca	5280
ggtgtccgag	gcccagcagg	agaaaaagggt	gaccgggggtc	cccctgggct	ggatggccgg	5340
agcggactgg	atgggaaacc	aggagccgct	gggcccctctg	ggccgaatgg	tgctgcaggc	5400
aaagctgggg	acccaggggag	agacgggcctt	ccaggcctcc	gtggagaaca	gggcctccct	5460
ggccccctctg	gtccccctgg	attaccggga	aagccaggcg	aggatggcaa	acctggcctg	5520
aatggaaaaa	acggagaacc	tggggaccct	ggagaagacg	ggaggaagg	agagaaagga	5580
gattcaggcg	cctctggggag	agaaggctgt	gatggcccca	agggtgagcg	tggagctcct	5640
ggtatccttg	gaccccagg	gcctccaggc	ctcccagggc	cagtgggccc	tcctggccag	5700
ggttttcctg	gtgtcccagg	aggcacgggc	cccaagggtg	accgtgggga	gactggatcc	5760
aaaggggagc	agggcctccc	tggagagcgt	ggcctgcgag	gagagcctgg	aagtgtgccg	5820
aatgtggatc	ggttgctgga	aactgctggc	atcaaggcat	ctgccctgcg	ggagatcgtg	5880
gagacctggg	atgagagctc	tggtagcttc	ctgcctgtgc	ccgaacggcg	tcgaggcccc	5940
aagggggact	caggcgaaca	gggcccccca	ggcaaggagg	gccccatcgg	ctttcctgga	6000
gaacgcgggc	tgaagggcga	ccgtggagac	cctggccctc	agggggccacc	tggctctggc	6060
cttggggaga	ggggcccccc	cgggccttcc	ggccttgccg	gggagcctgg	aaagcctggt	6120
attcccgggc	tcccaggcag	ggctgggggt	gtgggagagg	caggaaaggcc	aggagagagg	6180
ggagaacggg	gagagaaagg	agaacgtgga	gaacagggca	gagatggccc	tcctggactc	6240
cctggaaccc	ctgggcccc	cggaccccct	ggccccaagg	tgtctgtgga	tgagccagg	6300
cctggactct	ctggagaaca	gggaccccct	ggactcaagg	gtgctaagg	ggagccgggc	6360
agcaatggtg	accaaggctc	caaaggagac	aggggtgtgc	caggcatcaa	aggagaccgg	6420
ggagagcctg	gaccgagggg	tcaggacggc	aacccgggtc	taccaggaga	gcgtggtatg	6480
gctgggcctg	aagggaagcc	gggtctgcag	ggtccaagag	gcccccttg	cccagtgggt	6540
ggtcatggag	accctggacc	acctggtgcc	ccgggtcttg	ctggccctgc	aggaccccaa	6600
ggaccttctg	gcctgaagg	ggagcctgga	gagacaggac	ctccaggacg	gggcctgact	6660
ggacctactg	gagctgtggg	acttcctgga	cccccgggc	cttcaggcct	tgtgggtcca	6720
caggggtctc	caggtttgcc	tggacaagt	ggggagacag	ggaagccggg	agccccagg	6780
cgagatggtg	ccagtggaaa	agatggagac	agagggagcc	ctggtgtgcc	agggtcacca	6840
ggtctgcctg	gcccgtgcgg	acctaaagga	gaacctggcc	ccacgggggc	ccctggacag	6900
gctgtggtcg	ggctccctgg	agcaaaaggga	gagaaggagg	cccctggagg	ccttgctgga	6960
gacctggtgg	gtgagccggg	agccaaagg	gaccgaggac	tgccaggggc	gcgaggcgag	7020
aagggtgaag	ctggccgtgc	aggggagccc	ggagaccctg	gggaagatgg	tcagaaagg	7080
gctccaggac	ccaaagggtt	caagggtgac	ccaggagtgc	gggtcccggg	ctcccctggg	7140
cctcctggcc	ctccagggtg	gaagggagat	ctgggcctcc	ctggcctgcc	cgggtgctcct	7200
ggtgttgttg	ggttcccggg	tcagacaggc	cctcgaggag	agatgggtca	gccaggccct	7260
agtggagagc	ggggtctggc	aggccccca	gggagagaag	gaatcccagg	accctgggg	7320
ccacctggac	caccggggtc	agtgggacca	cctggggcct	ctggactcaa	aggagacaag	7380
ggagaccctg	gagtagggct	gcctgggccc	cgaggcgagc	gtggggagcc	aggcatccgg	7440
ggtgaagatg	gccgccccgg	ccaggaggga	ccccgaggac	tcacggggcc	ccctggcagc	7500
aggggagagc	gtggggagaa	gggtgatgtt	gggagtgcag	gactaaagg	tgacaaggga	7560
gactcagctg	tgatcctggg	gcctccaggc	ccacgggggtg	ccaaggggga	catgggtgaa	7620
cgagggcctc	ggggcttggg	tggtgacaaa	ggacctcggg	gagacaatgg	ggaccctggt	7680
gacaagggca	gcaagggaga	gcctggtgac	aagggtcag	ccgggttgcc	aggactgcgt	7740
ggactcctgg	gaccccagg	tcaacctggt	gcagcaggga	tccctggtga	cccgggatcc	7800
ccaggaaaagg	atggagtgcc	tggtatccga	ggagaaaaag	gagatgttgg	cttcatgggt	7860
ccccggggcc	tcaagggtga	acggggagtg	aagggagcct	gtggccttga	tggagagaag	7920
ggagacaagg	gagaagctgg	tccccaggc	cggcccgggc	tggcaggaca	caaaggagag	7980
atgggggagc	ctggtgtgcc	gggccagtcg	ggggcccctg	gcaaggagg	cctgatcgg	8040

cccaagggtg	accgaggctt	tgacgggcag	ccaggcccca	agggtgacca	gggcgagaaa	8100
ggggagcggg	gaaccccagg	aattgggggc	ttcccaggcc	ccagtggaaa	tgatggctct	8160
gctggtcccc	cagggccacc	tggcagtgtt	ggtdcccagag	gccccgaagg	acttcagggc	8220
cagaagggtg	agcgagggtcc	ccccggagag	agagtgggtg	gggctcctgg	ggtccctgga	8280
gctcctggcg	agagagggga	gcaggggcgg	ccagggcctg	ccggctcctcg	aggcgagaag	8340
ggagaagctg	cactgacgga	ggatgacatc	cggggctttg	tgcgccaaga	gatgagtcag	8400
cactgtgcct	gccagggcca	gttcatcgca	tctggatcac	gacccctccc	tagttatgct	8460
gcagacactg	ccggctccca	gctccatgct	gtgcctgtgc	tccgcgtctc	tcatgcagag	8520
gaggaagagc	gggtaccccc	tgaggatgat	gagtactctg	aatactccga	gtattctgtg	8580
gaggagtacc	aggaccctga	agctccttgg	gatagtgatg	acccctgttc	cctgccactg	8640
gatgagggct	cctgcactgc	ctacaccctg	cgctggtagc	atcgggctgt	gacaggcgagc	8700
acagaggcct	gtcacccctt	tgtctatggt	ggctgtggag	ggaatgcca	ccgttttggg	8760
acccgtgagg	cctgcgagcg	ccgctgcccc	ccccgggtgg	tccagagcca	ggggacagggt	8820
actgcccagg	acagggccaa	gaggggcagc	ggcgagggca	ggggcagcct	gctgacctgc	8880
ggcgacgtgg	aggagaaccc	cggccccacc	tcctcggggc	ctggaccccc	gttcctgctg	8940
ctgctgccgc	tgctgtgcc	ccctgcggcc	tcagcctccg	accggccccg	gggcccagac	9000
ccggtcaacc	cagagaagct	gctggtgatc	actgtggcca	cagctgaaac	cgaggggtac	9060
ctgcgtttcc	tgcgctctgc	ggagtcttct	aactacactg	tgcggaccct	gggcctggga	9120
gaggagtggc	gaggggggtga	tgtggctcga	acagttgggtg	gaggacagaa	ggtccgggtg	9180
ttaaagaagg	aaatggagaa	atacgctgac	cgggaggata	tgatcatcat	gtttgtggat	9240
agctacgacg	tgattctggc	cggcagcccc	acagagctgc	tgaagaagtt	cgtccagagt	9300
ggcagccgcc	tgctcttctc	tgacagagagc	ttctgctggc	ccgagtgggg	gctggcggag	9360
cagtaccctg	aggtgggcac	ggggaagcgc	ttcctcaatt	ctggtggatt	catcggtttt	9420
gccaccacca	tccaccaa	cgtgcgccag	tggaaagtaca	aggatgatga	cgacgaccag	9480
ctgttctaca	cacggctcta	cctggaccca	ggactgaggg	agaaactcag	ccttaatctg	9540
gatcataagt	ctcggatctt	tcagaacctc	aacggggcct	tagatgaagt	ggttttaaa	9600
tttgatcgga	accgtgtgcg	tatccggaac	gtggcctacg	acacgctccc	cattgtggtc	9660
catggaaacg	gtcccactaa	gctgcagctc	aactacctgg	gaaactacgt	ccccaatggc	9720
tggactcctg	agggaggctg	tggcttctgc	aaccaggacc	ggaggacact	cccggggggg	9780
cagcctcccc	cccgggtgtt	tctggccgtg	tttgtggaac	agcctactcc	gtttctgccc	9840
cgcttctctg	agcggctgct	actcctggac	tatccccccg	acagggtcac	ccttttctctg	9900
cacaacaacg	aggtcttcca	tgaaccccac	atcgctgact	cctggccgca	gctccaggac	9960
cacttctcag	ctgtgaagct	cgtggggccg	gaggaggctc	tgagcccagg	cgaggccagg	10020
gacatggcca	tggacctgtg	tcggcaggac	cccgagtgtg	agttctactt	cagcctggac	10080
gccgacgctg	tcctcaccaa	cctgcagacc	ctgcgtatcc	tcattgagga	gaacagggaag	10140
gtgatcgccc	ccatgctgtc	ccgccacggc	aagctgtggt	ccaacttctg	gggcgccctg	10200
agccccgatg	agtactacgc	ccgctccgag	gactacgtgg	agctgggtgca	gcggaagcga	10260
gtgggtgtgt	ggaatgtacc	atacatctcc	caggcctatg	tgatccgggg	tgataccctg	10320
cggatggagc	tgccccagag	ggatgtgttc	tcgggcagtg	acacagaccc	ggacatggcc	10380
ttctgtaaga	gctttcgaga	caagggcac	ttcctccatc	tgagcaatca	gcatgaattt	10440
ggccggctcc	tggccacttc	cagatacgac	acggagcacc	tgacccccga	cctctggcag	10500
atcttcgaca	acccgctcga	ctggaaggag	cagtacatcc	acgagaacta	cagccggggc	10560
ctggaagggg	aaggaatcgt	ggagcagcca	tgcccgagc	tgtactgggt	cccactgctg	10620
tcagaacaaa	tgtgtgatga	gctggtggca	gagatggagc	actacggcca	gtggtcaggc	10680
ggccggcatg	aggattcaag	gctggctgga	ggctacgaga	atgtgccac	cgtggacatc	10740
cacatgaagc	aggtggggta	cgaggaccag	tggctgcagc	tgctgcggac	gtatgtgggc	10800
cccatagaccg	agagcctgtt	tcccggttac	cacaccaagg	cgcgggcggg	gatgaacttt	10860
gtggttcgct	accggccaga	cgagcagccg	tctctgcggc	cacaccacga	ctcatccacc	10920
ttcacctca	acgttgccct	caaccacaag	ggcctggact	atgagggagg	tggctgcccgc	10980
ttcctgcgct	acgactgtgt	gatctcctcc	ccgaggaagg	gctgggcact	cctgcacccc	11040

ggccgcctca cccactacca cgaggggctg ccaacgacct ggggcacacg ctacatcatg 11100
 gtgtcctttg tcgaccctg a 11121

<210> 14

<211> 3706

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 14

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

Val	Thr	Val	Ile	Ala	Leu	Tyr	Ala	Asn	Ser	Ile	Gly	Glu	Ala	Val	Ser
305					310					315					320
Gly	Thr	Ala	Arg	Thr	Thr	Ala	Leu	Glu	Gly	Pro	Glu	Leu	Thr	Ile	Gln
				325					330						335
Asn	Thr	Thr	Ala	His	Ser	Leu	Leu	Val	Ala	Trp	Arg	Ser	Val	Pro	Gly
			340					345						350	
Ala	Thr	Gly	Tyr	Arg	Val	Thr	Trp	Arg	Val	Leu	Ser	Gly	Gly	Pro	Thr
		355					360					365			
Gln	Gln	Gln	Glu	Leu	Gly	Pro	Gly	Gln	Gly	Ser	Val	Leu	Leu	Arg	Asp
	370					375					380				
Leu	Glu	Pro	Gly	Thr	Asp	Tyr	Glu	Val	Thr	Val	Ser	Thr	Leu	Phe	Gly
385					390					395					400
Arg	Ser	Val	Gly	Pro	Ala	Thr	Ser	Leu	Met	Ala	Arg	Thr	Asp	Ala	Ser
				405					410					415	
Val	Glu	Gln	Thr	Leu	Arg	Pro	Val	Ile	Leu	Gly	Pro	Thr	Ser	Ile	Leu
			420					425						430	
Leu	Ser	Trp	Asn	Leu	Val	Pro	Glu	Ala	Arg	Gly	Tyr	Arg	Leu	Glu	Trp
		435					440					445			
Arg	Arg	Glu	Thr	Gly	Leu	Glu	Pro	Pro	Gln	Lys	Val	Val	Leu	Pro	Ser
	450					455					460				
Asp	Val	Thr	Arg	Tyr	Gln	Leu	Asp	Gly	Leu	Gln	Pro	Gly	Thr	Glu	Tyr
465					470					475					480
Arg	Leu	Thr	Leu	Tyr	Thr	Leu	Leu	Glu	Gly	His	Glu	Val	Ala	Thr	Pro
				485					490					495	
Ala	Thr	Val	Val	Pro	Thr	Gly	Pro	Glu	Leu	Pro	Val	Ser	Pro	Val	Thr
			500					505					510		
Asp	Leu	Gln	Ala	Thr	Glu	Leu	Pro	Gly	Gln	Arg	Val	Arg	Val	Ser	Trp
	515						520					525			
Ser	Pro	Val	Pro	Gly	Ala	Thr	Gln	Tyr	Arg	Ile	Ile	Val	Arg	Ser	Thr
	530					535					540				
Gln	Gly	Val	Glu	Arg	Thr	Leu	Val	Leu	Pro	Gly	Ser	Gln	Thr	Ala	Phe
545					550					555					560
Asp	Leu	Asp	Asp	Val	Gln	Ala	Gly	Leu	Ser	Tyr	Thr	Val	Arg	Val	Ser
				565					570					575	
Ala	Arg	Val	Gly	Pro	Arg	Glu	Gly	Ser	Ala	Ser	Val	Leu	Thr	Val	Arg
			580				585						590		
Arg	Glu	Pro	Glu	Thr	Pro	Leu	Ala	Val	Pro	Gly	Leu	Arg	Val	Val	Val
	595						600					605			
Ser	Asp	Ala	Thr	Arg	Val	Arg	Val	Ala	Trp	Gly	Pro	Val	Pro	Gly	Ala
	610					615					620				
Ser	Gly	Phe	Arg	Ile	Ser	Trp	Ser	Thr	Gly	Ser	Gly	Pro	Glu	Ser	Ser
625					630					635					640
Gln	Thr	Leu	Pro	Pro	Asp	Ser	Thr	Ala	Thr	Asp	Ile	Thr	Gly	Leu	Gln
				645					650					655	
Pro	Gly	Thr	Thr	Tyr	Gln	Val	Ala	Val	Ser	Val	Leu	Arg	Gly	Arg	Glu
			660				665						670		
Glu	Gly	Pro	Ala	Ala	Val	Ile	Val	Ala	Arg	Thr	Asp	Pro	Leu	Gly	Pro
	675						680					685			
Val	Arg	Thr	Val	His	Val	Thr	Gln	Ala	Ser	Ser	Ser	Ser	Val	Thr	Ile
	690					695					700				

Thr	Trp	Thr	Arg	Val	Pro	Gly	Ala	Thr	Gly	Tyr	Arg	Val	Ser	Trp	His
705					710					715					720
Ser	Ala	His	Gly	Pro	Glu	Lys	Ser	Gln	Leu	Val	Ser	Gly	Glu	Ala	Thr
				725					730						735
Val	Ala	Glu	Leu	Asp	Gly	Leu	Glu	Pro	Asp	Thr	Glu	Tyr	Thr	Val	His
			740					745						750	
Val	Arg	Ala	His	Val	Ala	Gly	Val	Asp	Gly	Pro	Pro	Ala	Ser	Val	Val
		755					760					765			
Val	Arg	Thr	Ala	Pro	Glu	Pro	Val	Gly	Arg	Val	Ser	Arg	Leu	Gln	Ile
	770					775					780				
Leu	Asn	Ala	Ser	Ser	Asp	Val	Leu	Arg	Ile	Thr	Trp	Val	Gly	Val	Thr
785					790					795					800
Gly	Ala	Thr	Ala	Tyr	Arg	Leu	Ala	Trp	Gly	Arg	Ser	Glu	Gly	Gly	Pro
				805					810						815
Met	Arg	His	Gln	Ile	Leu	Pro	Gly	Asn	Thr	Asp	Ser	Ala	Glu	Ile	Arg
			820					825					830		
Gly	Leu	Glu	Gly	Gly	Val	Ser	Tyr	Ser	Val	Arg	Val	Thr	Ala	Leu	Val
		835					840					845			
Gly	Asp	Arg	Glu	Gly	Thr	Pro	Val	Ser	Ile	Val	Val	Thr	Thr	Pro	Pro
	850					855						860			
Glu	Ala	Pro	Pro	Ala	Leu	Gly	Thr	Leu	His	Val	Val	Gln	Arg	Gly	Glu
865					870					875					880
His	Ser	Leu	Arg	Leu	Arg	Trp	Glu	Pro	Val	Pro	Arg	Ala	Gln	Gly	Phe
				885					890					895	
Leu	Leu	His	Trp	Gln	Pro	Glu	Gly	Gly	Gln	Glu	Gln	Ser	Arg	Val	Leu
		900						905					910		
Gly	Pro	Glu	Leu	Ser	Ser	Tyr	His	Leu	Asp	Gly	Leu	Glu	Pro	Ala	Thr
		915					920						925		
Gln	Tyr	Arg	Val	Arg	Leu	Ser	Val	Leu	Gly	Pro	Ala	Gly	Glu	Gly	Pro
	930					935					940				
Ser	Ala	Glu	Val	Thr	Ala	Arg	Thr	Glu	Ser	Pro	Arg	Val	Pro	Ser	Ile
945					950					955					960
Glu	Leu	Arg	Val	Val	Asp	Thr	Ser	Ile	Asp	Ser	Val	Thr	Leu	Ala	Trp
				965					970					975	
Thr	Pro	Val	Ser	Arg	Ala	Ser	Ser	Tyr	Ile	Leu	Ser	Trp	Arg	Pro	Leu
			980					985					990		
Arg	Gly	Pro	Gly	Gln	Glu	Val	Pro	Gly	Ser	Pro	Gln	Thr	Leu	Pro	Gly
		995					1000					1005			
Ile	Ser	Ser	Ser	Gln	Arg	Val	Thr	Gly	Leu	Glu	Pro	Gly	Val	Ser	Tyr
	1010					1015					1020				
Ile	Phe	Ser	Leu	Thr	Pro	Val	Leu	Asp	Gly	Val	Arg	Gly	Pro	Glu	Ala
1025					1030					1035					1040
Ser	Val	Thr	Gln	Thr	Pro	Val	Cys	Pro	Arg	Gly	Leu	Ala	Asp	Val	Val
				1045					1050					1055	
Phe	Leu	Pro	His	Ala	Thr	Gln	Asp	Asn	Ala	His	Arg	Ala	Glu	Ala	Thr
			1060				1065						1070		
Arg	Arg	Val	Leu	Glu	Arg	Leu	Val	Leu	Ala	Leu	Gly	Pro	Leu	Gly	Pro
		1075					1080					1085			
Gln	Ala	Val	Gln	Val	Gly	Leu	Leu	Ser	Tyr	Ser	His	Arg	Pro	Ser	Pro
	1090					1095					1100				

Leu	Phe	Pro	Leu	Asn	Gly	Ser	His	Asp	Leu	Gly	Ile	Ile	Leu	Gln	Arg	1105	1110	1115	1120
Ile	Arg	Asp	Met	Pro	Tyr	Met	Asp	Pro	Ser	Gly	Asn	Asn	Leu	Gly	Thr	1125	1130	1135	
Ala	Val	Val	Thr	Ala	His	Arg	Tyr	Met	Leu	Ala	Pro	Asp	Ala	Pro	Gly	1140	1145	1150	
Arg	Arg	Gln	His	Val	Pro	Gly	Val	Met	Val	Leu	Leu	Val	Asp	Glu	Pro	1155	1160	1165	
Leu	Arg	Gly	Asp	Ile	Phe	Ser	Pro	Ile	Arg	Glu	Ala	Gln	Ala	Ser	Gly	1170	1175	1180	
Leu	Asn	Val	Val	Met	Leu	Gly	Met	Ala	Gly	Ala	Asp	Pro	Glu	Gln	Leu	1185	1190	1195	1200
Arg	Arg	Leu	Ala	Pro	Gly	Met	Asp	Ser	Val	Gln	Thr	Phe	Phe	Ala	Val	1205	1210	1215	
Asp	Asp	Gly	Pro	Ser	Leu	Asp	Gln	Ala	Val	Ser	Gly	Leu	Ala	Thr	Ala	1220	1225	1230	
Leu	Cys	Gln	Ala	Ser	Phe	Thr	Thr	Gln	Pro	Arg	Pro	Glu	Pro	Cys	Pro	1235	1240	1245	
Val	Tyr	Cys	Pro	Lys	Gly	Gln	Lys	Gly	Glu	Pro	Gly	Glu	Met	Gly	Leu	1250	1255	1260	
Arg	Gly	Gln	Val	Gly	Pro	Pro	Gly	Asp	Pro	Gly	Leu	Pro	Gly	Arg	Thr	1265	1270	1275	1280
Gly	Ala	Pro	Gly	Pro	Gln	Gly	Pro	Pro	Gly	Ser	Ala	Thr	Ala	Lys	Gly	1285	1290	1295	
Glu	Arg	Gly	Phe	Pro	Gly	Ala	Asp	Gly	Arg	Pro	Gly	Ser	Pro	Gly	Arg	1300	1305	1310	
Ala	Gly	Asn	Pro	Gly	Thr	Pro	Gly	Ala	Pro	Gly	Leu	Lys	Gly	Ser	Pro	1315	1320	1325	
Gly	Leu	Pro	Gly	Pro	Arg	Gly	Asp	Pro	Gly	Glu	Arg	Gly	Pro	Arg	Gly	1330	1335	1340	
Pro	Lys	Gly	Glu	Pro	Gly	Ala	Pro	Gly	Gln	Val	Ile	Gly	Gly	Glu	Gly	1345	1350	1355	1360
Pro	Gly	Leu	Pro	Gly	Arg	Lys	Gly	Asp	Pro	Gly	Pro	Ser	Gly	Pro	Pro	1365	1370	1375	
Gly	Pro	Arg	Gly	Pro	Leu	Gly	Asp	Pro	Gly	Pro	Arg	Gly	Pro	Pro	Gly	1380	1385	1390	
Leu	Pro	Gly	Thr	Ala	Met	Lys	Gly	Asp	Lys	Gly	Asp	Arg	Gly	Glu	Arg	1395	1400	1405	
Gly	Pro	Pro	Gly	Pro	Gly	Glu	Gly	Gly	Ile	Ala	Pro	Gly	Glu	Pro	Gly	1410	1415	1420	
Leu	Pro	Gly	Leu	Pro	Gly	Ser	Pro	Gly	Pro	Gln	Gly	Pro	Val	Gly	Pro	1425	1430	1435	1440
Pro	Gly	Lys	Lys	Gly	Glu	Lys	Gly	Asp	Ser	Glu	Asp	Gly	Ala	Pro	Gly	1445	1450	1455	
Leu	Pro	Gly	Gln	Pro	Gly	Ser	Pro	Gly	Glu	Gln	Gly	Pro	Arg	Gly	Pro	1460	1465	1470	
Pro	Gly	Ala	Ile	Gly	Pro	Lys	Gly	Asp	Arg	Gly	Phe	Pro	Gly	Pro	Leu	1475	1480	1485	
Gly	Glu	Ala	Gly	Glu	Lys	Gly	Glu	Arg	Gly	Pro	Pro	Gly	Pro	Ala	Gly	1490	1495	1500	

Ser Arg Gly Leu Pro Gly Val Ala Gly Arg Pro Gly Ala Lys Gly Pro
 1505 1510 1515 1520
 Glu Gly Pro Pro Gly Pro Thr Gly Arg Gln Gly Glu Lys Gly Glu Pro
 1525 1530 1535
 Gly Arg Pro Gly Asp Pro Ala Val Val Gly Pro Ala Val Ala Gly Pro
 1540 1545 1550
 Lys Gly Glu Lys Gly Asp Val Gly Pro Ala Gly Pro Arg Gly Ala Thr
 1555 1560 1565
 Gly Val Gln Gly Glu Arg Gly Pro Pro Gly Leu Val Leu Pro Gly Asp
 1570 1575 1580
 Pro Gly Pro Lys Gly Asp Pro Gly Asp Arg Gly Pro Ile Gly Leu Thr
 1585 1590 1595 1600
 Gly Arg Ala Gly Pro Pro Gly Asp Ser Gly Pro Pro Gly Glu Lys Gly
 1605 1610 1615
 Asp Pro Gly Arg Pro Gly Pro Pro Gly Pro Val Gly Pro Arg Gly Arg
 1620 1625 1630
 Asp Gly Glu Val Gly Glu Lys Gly Asp Glu Gly Pro Pro Gly Asp Pro
 1635 1640 1645
 Gly Leu Pro Gly Lys Ala Gly Glu Arg Gly Leu Arg Gly Ala Pro Gly
 1650 1655 1660
 Val Arg Gly Pro Val Gly Glu Lys Gly Asp Gln Gly Asp Pro Gly Glu
 1665 1670 1675 1680
 Asp Gly Arg Asn Gly Ser Pro Gly Ser Ser Gly Pro Lys Gly Asp Arg
 1685 1690 1695
 Gly Glu Pro Gly Pro Pro Gly Pro Pro Gly Arg Leu Val Asp Thr Gly
 1700 1705 1710
 Pro Gly Ala Arg Glu Lys Gly Glu Pro Gly Asp Arg Gly Gln Glu Gly
 1715 1720 1725
 Pro Arg Gly Pro Lys Gly Asp Pro Gly Leu Pro Gly Ala Pro Gly Glu
 1730 1735 1740
 Arg Gly Ile Glu Gly Phe Arg Gly Pro Pro Gly Pro Gln Gly Asp Pro
 1745 1750 1755 1760
 Gly Val Arg Gly Pro Ala Gly Glu Lys Gly Asp Arg Gly Pro Pro Gly
 1765 1770 1775
 Leu Asp Gly Arg Ser Gly Leu Asp Gly Lys Pro Gly Ala Ala Gly Pro
 1780 1785 1790
 Ser Gly Pro Asn Gly Ala Ala Gly Lys Ala Gly Asp Pro Gly Arg Asp
 1795 1800 1805
 Gly Leu Pro Gly Leu Arg Gly Glu Gln Gly Leu Pro Gly Pro Ser Gly
 1810 1815 1820
 Pro Pro Gly Leu Pro Gly Lys Pro Gly Glu Asp Gly Lys Pro Gly Leu
 1825 1830 1835 1840
 Asn Gly Lys Asn Gly Glu Pro Gly Asp Pro Gly Glu Asp Gly Arg Lys
 1845 1850 1855
 Gly Glu Lys Gly Asp Ser Gly Ala Ser Gly Arg Glu Gly Arg Asp Gly
 1860 1865 1870
 Pro Lys Gly Glu Arg Gly Ala Pro Gly Ile Leu Gly Pro Gln Gly Pro
 1875 1880 1885
 Pro Gly Leu Pro Gly Pro Val Gly Pro Pro Gly Gln Gly Phe Pro Gly
 1890 1895 1900

Val	Pro	Gly	Gly	Thr	Gly	Pro	Lys	Gly	Asp	Arg	Gly	Glu	Thr	Gly	Ser	1905	1910	1915	1920
Lys	Gly	Glu	Gln	Gly	Leu	Pro	Gly	Glu	Arg	Gly	Leu	Arg	Gly	Glu	Pro		1925	1930	1935
Gly	Ser	Val	Pro	Asn	Val	Asp	Arg	Leu	Leu	Glu	Thr	Ala	Gly	Ile	Lys		1940	1945	1950
Ala	Ser	Ala	Leu	Arg	Glu	Ile	Val	Glu	Thr	Trp	Asp	Glu	Ser	Ser	Gly		1955	1960	1965
Ser	Phe	Leu	Pro	Val	Pro	Glu	Arg	Arg	Arg	Gly	Pro	Lys	Gly	Asp	Ser	1970	1975	1980	
Gly	Glu	Gln	Gly	Pro	Pro	Gly	Lys	Glu	Gly	Pro	Ile	Gly	Phe	Pro	Gly	1985	1990	1995	2000
Glu	Arg	Gly	Leu	Lys	Gly	Asp	Arg	Gly	Asp	Pro	Gly	Pro	Gln	Gly	Pro		2005	2010	2015
Pro	Gly	Leu	Ala	Leu	Gly	Glu	Arg	Gly	Pro	Pro	Gly	Pro	Ser	Gly	Leu		2020	2025	2030
Ala	Gly	Glu	Pro	Gly	Lys	Pro	Gly	Ile	Pro	Gly	Leu	Pro	Gly	Arg	Ala		2035	2040	2045
Gly	Gly	Val	Gly	Glu	Ala	Gly	Arg	Pro	Gly	Glu	Arg	Gly	Glu	Arg	Gly	2050	2055	2060	
Glu	Lys	Gly	Glu	Arg	Gly	Glu	Gln	Gly	Arg	Asp	Gly	Pro	Pro	Gly	Leu	2065	2070	2075	2080
Pro	Gly	Thr	Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Pro	Lys	Val	Ser	Val		2085	2090	2095
Asp	Glu	Pro	Gly	Pro	Gly	Leu	Ser	Gly	Glu	Gln	Gly	Pro	Pro	Gly	Leu		2100	2105	2110
Lys	Gly	Ala	Lys	Gly	Glu	Pro	Gly	Ser	Asn	Gly	Asp	Gln	Gly	Pro	Lys		2115	2120	2125
Gly	Asp	Arg	Gly	Val	Pro	Gly	Ile	Lys	Gly	Asp	Arg	Gly	Glu	Pro	Gly	2130	2135	2140	
Pro	Arg	Gly	Gln	Asp	Gly	Asn	Pro	Gly	Leu	Pro	Gly	Glu	Arg	Gly	Met	2145	2150	2155	2160
Ala	Gly	Pro	Glu	Gly	Lys	Pro	Gly	Leu	Gln	Gly	Pro	Arg	Gly	Pro	Pro		2165	2170	2175
Gly	Pro	Val	Gly	Gly	His	Gly	Asp	Pro	Gly	Pro	Pro	Gly	Ala	Pro	Gly		2180	2185	2190
Leu	Ala	Gly	Pro	Ala	Gly	Pro	Gln	Gly	Pro	Ser	Gly	Leu	Lys	Gly	Glu	2195	2200	2205	
Pro	Gly	Glu	Thr	Gly	Pro	Pro	Gly	Arg	Gly	Leu	Thr	Gly	Pro	Thr	Gly	2210	2215	2220	
Ala	Val	Gly	Leu	Pro	Gly	Pro	Pro	Gly	Pro	Ser	Gly	Leu	Val	Gly	Pro	2225	2230	2235	2240
Gln	Gly	Ser	Pro	Gly	Leu	Pro	Gly	Gln	Val	Gly	Glu	Thr	Gly	Lys	Pro		2245	2250	2255
Gly	Ala	Pro	Gly	Arg	Asp	Gly	Ala	Ser	Gly	Lys	Asp	Gly	Asp	Arg	Gly		2260	2265	2270
Ser	Pro	Gly	Val	Pro	Gly	Ser	Pro	Gly	Leu	Pro	Gly	Pro	Val	Gly	Pro	2275	2280	2285	
Lys	Gly	Glu	Pro	Gly	Pro	Thr	Gly	Ala	Pro	Gly	Gln	Ala	Val	Val	Gly	2290	2295	2300	

Leu Pro Gly Ala Lys Gly Glu Lys Gly Ala Pro Gly Gly Leu Ala Gly
 2305 2310 2315 2320
 Asp Leu Val Gly Glu Pro Gly Ala Lys Gly Asp Arg Gly Leu Pro Gly
 2325 2330 2335
 Pro Arg Gly Glu Lys Gly Glu Ala Gly Arg Ala Gly Glu Pro Gly Asp
 2340 2345 2350
 Pro Gly Glu Asp Gly Gln Lys Gly Ala Pro Gly Pro Lys Gly Phe Lys
 2355 2360 2365
 Gly Asp Pro Gly Val Gly Val Pro Gly Ser Pro Gly Pro Pro Gly Pro
 2370 2375 2380
 Pro Gly Val Lys Gly Asp Leu Gly Leu Pro Gly Leu Pro Gly Ala Pro
 2385 2390 2395 2400
 Gly Val Val Gly Phe Pro Gly Gln Thr Gly Pro Arg Gly Glu Met Gly
 2405 2410 2415
 Gln Pro Gly Pro Ser Gly Glu Arg Gly Leu Ala Gly Pro Pro Gly Arg
 2420 2425 2430
 Glu Gly Ile Pro Gly Pro Leu Gly Pro Pro Gly Pro Pro Gly Ser Val
 2435 2440 2445
 Gly Pro Pro Gly Ala Ser Gly Leu Lys Gly Asp Lys Gly Asp Pro Gly
 2450 2455 2460
 Val Gly Leu Pro Gly Pro Arg Gly Glu Arg Gly Glu Pro Gly Ile Arg
 2465 2470 2475 2480
 Gly Glu Asp Gly Arg Pro Gly Gln Glu Gly Pro Arg Gly Leu Thr Gly
 2485 2490 2495
 Pro Pro Gly Ser Arg Gly Glu Arg Gly Glu Lys Gly Asp Val Gly Ser
 2500 2505 2510
 Ala Gly Leu Lys Gly Asp Lys Gly Asp Ser Ala Val Ile Leu Gly Pro
 2515 2520 2525
 Pro Gly Pro Arg Gly Ala Lys Gly Asp Met Gly Glu Arg Gly Pro Arg
 2530 2535 2540
 Gly Leu Asp Gly Asp Lys Gly Pro Arg Gly Asp Asn Gly Asp Pro Gly
 2545 2550 2555 2560
 Asp Lys Gly Ser Lys Gly Glu Pro Gly Asp Lys Gly Ser Ala Gly Leu
 2565 2570 2575
 Pro Gly Leu Arg Gly Leu Leu Gly Pro Gln Gly Gln Pro Gly Ala Ala
 2580 2585 2590
 Gly Ile Pro Gly Asp Pro Gly Ser Pro Gly Lys Asp Gly Val Pro Gly
 2595 2600 2605
 Ile Arg Gly Glu Lys Gly Asp Val Gly Phe Met Gly Pro Arg Gly Leu
 2610 2615 2620
 Lys Gly Glu Arg Gly Val Lys Gly Ala Cys Gly Leu Asp Gly Glu Lys
 2625 2630 2635 2640
 Gly Asp Lys Gly Glu Ala Gly Pro Pro Gly Arg Pro Gly Leu Ala Gly
 2645 2650 2655
 His Lys Gly Glu Met Gly Glu Pro Gly Val Pro Gly Gln Ser Gly Ala
 2660 2665 2670
 Pro Gly Lys Glu Gly Leu Ile Gly Pro Lys Gly Asp Arg Gly Phe Asp
 2675 2680 2685
 Gly Gln Pro Gly Pro Lys Gly Asp Gln Gly Glu Lys Gly Glu Arg Gly
 2690 2695 2700

Thr	Pro	Gly	Ile	Gly	Gly	Phe	Pro	Gly	Pro	Ser	Gly	Asn	Asp	Gly	Ser	2705	2710	2715	2720
Ala	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Ser	Val	Gly	Pro	Arg	Gly	Pro	Glu	2725	2730	2735	
Gly	Leu	Gln	Gly	Gln	Lys	Gly	Glu	Arg	Gly	Pro	Pro	Gly	Glu	Arg	Val	2740	2745	2750	
Val	Gly	Ala	Pro	Gly	Val	Pro	Gly	Ala	Pro	Gly	Glu	Arg	Gly	Glu	Gln	2755	2760	2765	
Gly	Arg	Pro	Gly	Pro	Ala	Gly	Pro	Arg	Gly	Glu	Lys	Gly	Glu	Ala	Ala	2770	2775	2780	
Leu	Thr	Glu	Asp	Asp	Ile	Arg	Gly	Phe	Val	Arg	Gln	Glu	Met	Ser	Gln	2785	2790	2795	2800
His	Cys	Ala	Cys	Gln	Gly	Gln	Phe	Ile	Ala	Ser	Gly	Ser	Arg	Pro	Leu	2805	2810	2815	
Pro	Ser	Tyr	Ala	Ala	Asp	Thr	Ala	Gly	Ser	Gln	Leu	His	Ala	Val	Pro	2820	2825	2830	
Val	Leu	Arg	Val	Ser	His	Ala	Glu	Glu	Glu	Glu	Arg	Val	Pro	Pro	Glu	2835	2840	2845	
Asp	Asp	Glu	Tyr	Ser	Glu	Tyr	Ser	Glu	Tyr	Ser	Val	Glu	Glu	Tyr	Gln	2850	2855	2860	
Asp	Pro	Glu	Ala	Pro	Trp	Asp	Ser	Asp	Asp	Pro	Cys	Ser	Leu	Pro	Leu	2865	2870	2875	2880
Asp	Glu	Gly	Ser	Cys	Thr	Ala	Tyr	Thr	Leu	Arg	Trp	Tyr	His	Arg	Ala	2885	2890	2895	
Val	Thr	Gly	Ser	Thr	Glu	Ala	Cys	His	Pro	Phe	Val	Tyr	Gly	Gly	Cys	2900	2905	2910	
Gly	Gly	Asn	Ala	Asn	Arg	Phe	Gly	Thr	Arg	Glu	Ala	Cys	Glu	Arg	Arg	2915	2920	2925	
Cys	Pro	Pro	Arg	Val	Val	Gln	Ser	Gln	Gly	Thr	Gly	Thr	Ala	Gln	Asp	2930	2935	2940	
Arg	Ala	Lys	Arg	Gly	Ser	Gly	Glu	Gly	Arg	Gly	Ser	Leu	Leu	Thr	Cys	2945	2950	2955	2960
Gly	Asp	Val	Glu	Glu	Asn	Pro	Gly	Pro	Thr	Ser	Ser	Gly	Pro	Gly	Pro	2965	2970	2975	
Arg	Phe	Leu	Leu	Leu	Pro	Leu	Leu	Leu	Pro	Pro	Ala	Ala	Ser	Ala		2980	2985	2990	
Ser	Asp	Arg	Pro	Arg	Gly	Arg	Asp	Pro	Val	Asn	Pro	Glu	Lys	Leu	Leu	2995	3000	3005	
Val	Ile	Thr	Val	Ala	Thr	Ala	Glu	Thr	Glu	Gly	Tyr	Leu	Arg	Phe	Leu	3010	3015	3020	
Arg	Ser	Ala	Glu	Phe	Phe	Asn	Tyr	Thr	Val	Arg	Thr	Leu	Gly	Leu	Gly	3025	3030	3035	3040
Glu	Glu	Trp	Arg	Gly	Gly	Asp	Val	Ala	Arg	Thr	Val	Gly	Gly	Gly	Gln	3045	3050	3055	
Lys	Val	Arg	Trp	Leu	Lys	Lys	Glu	Met	Glu	Lys	Tyr	Ala	Asp	Arg	Glu	3060	3065	3070	
Asp	Met	Ile	Ile	Met	Phe	Val	Asp	Ser	Tyr	Asp	Val	Ile	Leu	Ala	Gly	3075	3080	3085	
Ser	Pro	Thr	Glu	Leu	Leu	Lys	Lys	Phe	Val	Gln	Ser	Gly	Ser	Arg	Leu	3090	3095	3100	

Leu	Phe	Ser	Ala	Glu	Ser	Phe	Cys	Trp	Pro	Glu	Trp	Gly	Leu	Ala	Glu	3105	3110	3115	3120
Gln	Tyr	Pro	Glu	Val	Gly	Thr	Gly	Lys	Arg	Phe	Leu	Asn	Ser	Gly	Gly	3125	3130	3135	
Phe	Ile	Gly	Phe	Ala	Thr	Thr	Ile	His	Gln	Ile	Val	Arg	Gln	Trp	Lys	3140	3145	3150	
Tyr	Lys	Asp	Asp	Asp	Asp	Asp	Gln	Leu	Phe	Tyr	Thr	Arg	Leu	Tyr	Leu	3155	3160	3165	
Asp	Pro	Gly	Leu	Arg	Glu	Lys	Leu	Ser	Leu	Asn	Leu	Asp	His	Lys	Ser	3170	3175	3180	
Arg	Ile	Phe	Gln	Asn	Leu	Asn	Gly	Ala	Leu	Asp	Glu	Val	Val	Leu	Lys	3185	3190	3195	3200
Phe	Asp	Arg	Asn	Arg	Val	Arg	Ile	Arg	Asn	Val	Ala	Tyr	Asp	Thr	Leu	3205	3210	3215	
Pro	Ile	Val	Val	His	Gly	Asn	Gly	Pro	Thr	Lys	Leu	Gln	Leu	Asn	Tyr	3220	3225	3230	
Leu	Gly	Asn	Tyr	Val	Pro	Asn	Gly	Trp	Thr	Pro	Glu	Gly	Gly	Cys	Gly	3235	3240	3245	
Phe	Cys	Asn	Gln	Asp	Arg	Arg	Thr	Leu	Pro	Gly	Gly	Gln	Pro	Pro	Pro	3250	3255	3260	
Arg	Val	Phe	Leu	Ala	Val	Phe	Val	Glu	Gln	Pro	Thr	Pro	Phe	Leu	Pro	3265	3270	3275	3280
Arg	Phe	Leu	Gln	Arg	Leu	Leu	Leu	Leu	Asp	Tyr	Pro	Pro	Asp	Arg	Val	3285	3290	3295	
Thr	Leu	Phe	Leu	His	Asn	Asn	Glu	Val	Phe	His	Glu	Pro	His	Ile	Ala	3300	3305	3310	
Asp	Ser	Trp	Pro	Gln	Leu	Gln	Asp	His	Phe	Ser	Ala	Val	Lys	Leu	Val	3315	3320	3325	
Gly	Pro	Glu	Glu	Ala	Leu	Ser	Pro	Gly	Glu	Ala	Arg	Asp	Met	Ala	Met	3330	3335	3340	
Asp	Leu	Cys	Arg	Gln	Asp	Pro	Glu	Cys	Glu	Phe	Tyr	Phe	Ser	Leu	Asp	3345	3350	3355	3360
Ala	Asp	Ala	Val	Leu	Thr	Asn	Leu	Gln	Thr	Leu	Arg	Ile	Leu	Ile	Glu	3365	3370	3375	
Glu	Asn	Arg	Lys	Val	Ile	Ala	Pro	Met	Leu	Ser	Arg	His	Gly	Lys	Leu	3380	3385	3390	
Trp	Ser	Asn	Phe	Trp	Gly	Ala	Leu	Ser	Pro	Asp	Glu	Tyr	Tyr	Ala	Arg	3395	3400	3405	
Ser	Glu	Asp	Tyr	Val	Glu	Leu	Val	Gln	Arg	Lys	Arg	Val	Gly	Val	Trp	3410	3415	3420	
Asn	Val	Pro	Tyr	Ile	Ser	Gln	Ala	Tyr	Val	Ile	Arg	Gly	Asp	Thr	Leu	3425	3430	3435	3440
Arg	Met	Glu	Leu	Pro	Gln	Arg	Asp	Val	Phe	Ser	Gly	Ser	Asp	Thr	Asp	3445	3450	3455	
Pro	Asp	Met	Ala	Phe	Cys	Lys	Ser	Phe	Arg	Asp	Lys	Gly	Ile	Phe	Leu	3460	3465	3470	
His	Leu	Ser	Asn	Gln	His	Glu	Phe	Gly	Arg	Leu	Leu	Ala	Thr	Ser	Arg	3475	3480	3485	
Tyr	Asp	Thr	Glu	His	Leu	His	Pro	Asp	Leu	Trp	Gln	Ile	Phe	Asp	Asn	3490	3495	3500	

Pro Val Asp Trp Lys Glu Gln Tyr Ile His Glu Asn Tyr Ser Arg Ala															
3505				3510				3515							3520
Leu Glu Gly Glu Gly Ile Val Glu Gln Pro Cys Pro Asp Val Tyr Trp															
				3525				3530							3535
Phe Pro Leu Leu Ser Glu Gln Met Cys Asp Glu Leu Val Ala Glu Met															
				3540				3545							3550
Glu His Tyr Gly Gln Trp Ser Gly Gly Arg His Glu Asp Ser Arg Leu															
				3555				3560							3565
Ala Gly Gly Tyr Glu Asn Val Pro Thr Val Asp Ile His Met Lys Gln															
				3570				3575							3580
Val Gly Tyr Glu Asp Gln Trp Leu Gln Leu Leu Arg Thr Tyr Val Gly															
				3585				3590							3600
Pro Met Thr Glu Ser Leu Phe Pro Gly Tyr His Thr Lys Ala Arg Ala															
				3605				3610							3615
Val Met Asn Phe Val Val Arg Tyr Arg Pro Asp Glu Gln Pro Ser Leu															
				3620				3625							3630
Arg Pro His His Asp Ser Ser Thr Phe Thr Leu Asn Val Ala Leu Asn															
				3635				3640							3645
His Lys Gly Leu Asp Tyr Glu Gly Gly Gly Cys Arg Phe Leu Arg Tyr															
				3650				3655							3660
Asp Cys Val Ile Ser Ser Pro Arg Lys Gly Trp Ala Leu Leu His Pro															
				3665				3670							3680
Gly Arg Leu Thr His Tyr His Glu Gly Leu Pro Thr Thr Trp Gly Thr															
				3685				3690							3695
Arg Tyr Ile Met Val Ser Phe Val Asp Pro															
				3700				3705							

<210> 15
 <211> 11121
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic Construct

<400> 15
 atgacctcct cggggcctgg accccgggtc ctgctgctgc tgccgctgct gctgccccct 60
 gcggcctcag cctccgaccg gccccggggc cgagaccgga tcaaccacaga gaagctgctg 120
 gtgatcactg tggccacagc tgaaaccgag gggtagctgc gtttcctgcg ctctgcggag 180
 ttcttcaact acactgtgcg gaccctgggc ctgggagagg agtggcgagg gggtagatgtg 240
 gctcgaacag ttggtggagg acagaagggtc cggtaggttaa agaaggaaat ggagaaatac 300
 gctgaccggg aggatatgat catcatgttt gtggatagct acgacgtgat tctggccggc 360
 agccccacag agctgtgtaa gaagttcgtc cagagtggca gccgcctgct cttctctgca 420
 gagagcttct gctggcccga gtgggggctg gcggagcagt accctgaggt gggcacgggg 480
 aagcgcttcc tcaattctgg tggattcatc ggttttgccca ccaccatcca ccaaatacgtg 540
 cgccagtggg agtacaagga tgatgacgac gaccagctgt tctacacacg gctctacctg 600
 gacccaggac tgaggggagaa actcagcctt aatctggatc ataagtctcg gatctttcag 660
 aacctcaacg gggctttaga tgaagtgggt ttaaagtgtg atcgggaaccg tgtgcgtatc 720
 cggaacgtgg cctacgacac gctccccatt gtggtccatg gaaacggtcc cactaagctg 780

cagctcaact	acctgggaaa	ctacgtcccc	aatggctgga	ctcctgaggg	aggctgtggc	840
ttctgcaacc	aggaccggag	gacactcccc	ggggggcagc	ctcccccccg	ggtgtttctg	900
gccgtgtttg	tggaacagcc	tactccgttt	ctgccccgct	tcctgcagcg	gctgctactc	960
ctggactatc	cccccgacag	ggtcaccctt	ttcctgcaca	acaacgaggt	cttccatgaa	1020
ccccacatcg	ctgactcctg	gccgcagctc	caggaccact	tctcagctgt	gaagctcgtg	1080
gggcccggagg	aggctctgag	cccaggcgag	gccagggaca	tggccatgga	cctgtgtcgg	1140
caggaccccc	agtgtgagtt	ctacttcagc	ctggacgccg	acgctgtcct	caccaacctg	1200
cagaccctgc	gtatcctcat	tgaggagaac	aggaagggtga	tcgcccccat	gctgtccccg	1260
cacggcaagc	tgtgggtccaa	cttctggggc	gccctgagcc	ccgatgagta	ctacgccccg	1320
tccgaggact	acgtggagct	ggtgcagcgg	aagcgagtgg	gtgtgtggaa	tgtaccatac	1380
atctcccagg	cctatgtgat	ccgggggtgat	accctgcgga	tggagctgcc	ccagaggggat	1440
gtgtttctcgg	gcagtgcac	agacccggac	atggccttct	gtaagagctt	tcgagacaag	1500
ggcatcttcc	tccatctgag	caatcagcat	gaatttggcc	ggctcctggc	cacttccaga	1560
tacgacacgg	agcacctgca	ccccgacctc	tggcagatct	tcgacaaccc	cgtcgactgg	1620
aaggagcagt	acatccacga	gaactacagc	cgggccctgg	aaggggaagg	aatcgtggag	1680
cagccatgcc	cggacgtgta	ctggttccca	ctgctgtcag	aacaaatgtg	tgatgagctg	1740
gtggcagaga	tggagcacta	cggccagtgg	tcaggcggcc	ggcatgagga	ttcaaggctg	1800
gctggagggt	acgagaatgt	gcccaccgtg	gacatccaca	tgaagcaggt	gggggtacgag	1860
gaccagtggc	tgcagctgct	gcggacgtat	gtgggcccc	tgaccgagag	cctgtttccc	1920
ggttaccaca	ccaaggcgcg	ggcgggtgat	aactttgtgg	ttcgctaccg	gccagacgag	1980
cagccgtctc	tgcggccaca	ccacgactca	tccaccttca	ccctcaacgt	tgccctcaac	2040
cacaagggcc	tggactatga	gggaggtggc	tgccgcttcc	tgcgtacga	ctgtgtgatc	2100
tcctccccga	ggaagggtcg	ggcactcctg	caccccggcc	gcctcaccca	ctaccacgag	2160
gggctgccaa	cgacctgggg	cacacgctac	atcatggtgt	cctttgtcga	ccccagggcc	2220
aagaggggca	gcggcgaggg	caggggcagc	ctgctgacct	gcggcgacgt	ggaggagaac	2280
cccggcccca	cgctgcggct	tctggtggcc	gcgctctgcg	ccgggatcct	ggcagaggcg	2340
ccccgagtgc	gagcccagca	cagggagaga	gtgacctgca	cgcgccttta	cgccgctgac	2400
attgtgttct	tactggatgg	ctcctcatcc	attggccgca	gcaatttccg	cgagggtccgc	2460
agctttctcg	aagggtggtg	gctgcctttc	tctggagcag	ccagtgcaca	gggtgtgcgc	2520
tttgccacag	tgcagtacag	cgatgaccca	cggacagagt	tcggcctgga	tgcacttggc	2580
tctgggggtg	atgtgatccg	cgccatccgt	gagcttagct	acaagggggg	caacactcgc	2640
acaggggctg	caatttctca	tgtggctgac	catgtcttcc	tgccccagct	ggccccgacct	2700
ggtgtcccca	aggtctgcat	cctgatcaca	gacgggaagt	cccaggacct	ggtggacaca	2760
gctgcccaca	ggctgaaggg	gcaggggggtc	aagctatttg	ctgtggggat	caagaatgct	2820
gacctgagg	agctgaagcg	agttgcctca	cagcccacca	gtgacttctt	cttcttcgtc	2880
aatgacttca	gcatcttgag	gacactactg	cccctcgttt	cccggagagt	gtgcacgact	2940
gctggtggcg	tgctgtgac	ccgacctccg	gatgactcga	cctctgctcc	acgagacctg	3000
gtgctgtctg	agccaagcag	ccaatccttg	agagtacagt	ggacagcggc	cagtggccct	3060
gtgactggct	acaagggtcca	gtacactcct	ctgacggggc	tgggacagcc	actgccgagt	3120
gagcggcagg	aggtgaacgt	cccagctggt	gagaccagtg	tgcggctgcg	gggtctccgg	3180
ccactgaccg	agtaccaagt	gactgtgatt	gccctctacg	ccaacagcat	cggggagggt	3240
gtgagcggga	cagctcggac	cactgcccta	gaagggccgg	aactgaccat	ccagaatacc	3300
acagcccaca	gcctcctggt	ggcctggcgg	agtgtgccag	gtgccactgg	ctaccgtgtg	3360
acatggcggg	tcctcagtgg	tgggcccaca	cagcagcagg	agctgggccc	tgggcagggt	3420
tcagtgttgc	tgcgtgactt	ggagcctggc	acggactatg	aggtgaccgt	gagcacccta	3480
tttggccgca	gtgtggggcc	cgccacttcc	ctgatggctc	gcactgacgc	ttctgttgag	3540
cagaccctgc	gcccgggtcat	cctgggcccc	acatccatcc	tcctttcctg	gaacttggtg	3600
cctgaggccc	gtggctaccg	gttggaatgg	cggcgtgaga	ctggccttga	gccaccgcag	3660
aagggtgtac	tgccctctga	tgtgacccgc	taccagttgg	atgggctgca	gccgggcact	3720
gagtaccgcc	tcacactcta	cactctgctg	gagggccacg	aggtggccac	ccctgcaacc	3780

gtggttccca	ctggaccaga	gctgcctgtg	agccctgtaa	cagacctgca	agccaccgag	3840
ctgcccgggc	agcgggtgcg	agtgtcctgg	agcccagtcc	ctggtgccac	ccagtaccgc	3900
atcattgtgc	gcagcaccca	gggggttgag	cggaccctgg	tgcttcctgg	gagtcagaca	3960
gcattcgact	tggatgacgt	tcaggctggg	cttagctaca	ctgtgcgggt	gtctgctcga	4020
gtgggtcccc	gtgagggcag	tgccagtgtc	ctcactgtcc	gccgggagcc	ggaaactcca	4080
cttgctgttc	cagggctgcg	ggttgtgggt	tcagatgcaa	cgcgagtgag	ggtggcctgg	4140
ggacccgtcc	ctggagccag	tggatttcgg	attagctgga	gcacaggcag	tggtcgggag	4200
tccagccaga	cactgcccc	agactctact	gccacagaca	tcacagggct	gcagcctgga	4260
accacctacc	aggtggctgt	gtcggtagct	cgaggcagag	aggaggggcc	tgctgcagtc	4320
atcgtggctc	gaacggaccc	actgggcccc	gtgaggacgg	tccatgtgac	tcaggccagc	4380
agctcatctg	tcaccattac	ctggaccagg	gttcctggcg	ccacaggata	cagggtttcc	4440
tggcactcag	cccacggccc	agagaaatcc	cagttggttt	ctggggaggc	cacggtggct	4500
gagctggatg	gactggagcc	agatactgag	tatacgggtc	atgtgagggc	ccatgtggct	4560
ggcgtggatg	ggccccctgc	ctctgtgggt	gtgaggactg	cccctgagcc	tgtgggtcgt	4620
gtgtcgaggc	tcagatcct	caatgcttcc	agcgacgttc	tacggatcac	ctgggtaggg	4680
gtcactggag	ccacagctta	cagactggcc	tggggccgga	gtgaaggcgg	ccccatgagg	4740
caccagatac	tcccaggaaa	cacagactct	gcagagatcc	ggggtctcga	aggtggagtc	4800
agctactcag	tgcgagtgac	tgcacttgct	ggggaccgcg	agggcacacc	tgtctccatt	4860
gttgtcacta	cgccgcctga	ggctccgcca	gccctgggga	cgcttcacgt	ggtgcagcgc	4920
ggggagcact	cgctgaggct	gcgctgggag	ccggtgcccc	gagcgcaggg	cttccttctg	4980
cactggcaac	ctgaggggtg	ccaggaacag	tcccgggtcc	tggggcccgga	gctcagcagc	5040
tatcacctgg	acgggctgga	gccagcgaca	cagtaccgcg	tgaggctgag	tgtcctaggg	5100
ccagctggag	aagggccctc	tgcagaggtg	actgcgcgca	ctgagtcacc	tcgtgttcca	5160
agcattgaac	tacgtgtggt	ggacacctcg	atcgactcgg	tgactttggc	ctggactcca	5220
gtgtccaggg	catccagcta	catcctatcc	tggcggccac	tcagaggccc	tggccaggaa	5280
gtgcctgggt	ccccgcagac	acttccaggg	atctcaagct	cccagcgggt	gacagggtca	5340
gagcctggcg	tctcttacat	cttctccctg	acgcctgtcc	tggatggtgt	gcggggctct	5400
gaggcatctg	tcacacagac	gccagtgtgc	cccgtggccc	tggcggatgt	ggtgttccta	5460
ccacatgcca	ctcaagacaa	tgtcaccgt	gcggaggcta	cgaggagggt	cctggagcgt	5520
ctggtgttgg	cacttgggccc	tcttgggcca	caggcagttc	aggttggcct	gctgtcttac	5580
agtcacggc	cctccccact	gttcccactg	aatggctccc	atgaccttgg	cattatcttg	5640
caaaggatcc	gtgacatgcc	ctacatggac	ccaagtggga	acaacctggg	cacagccgtg	5700
gtcacagctc	acagatacat	gttggcacca	gatgctcctg	ggcgccgcca	gcacgtacca	5760
ggggtgatgg	ttctgctagt	ggatgaaccc	ttgagagggt	acataattcag	ccccatccgt	5820
gaggcccagg	cttctgggct	taatgtgggt	atgttgggaa	tggctggagc	ggaccagag	5880
cagctgcgtc	gcttggcgcc	gggtatggac	tctgtccaga	ccttcttcgc	cgtggatgat	5940
gggccaagcc	tggaccaggc	agtcagtgg	ctggccacag	ccctgtgtca	ggcatccttc	6000
actactcagc	cccggccaga	gccctgcccc	gtgtattgtc	caaagggccca	gaagggggaa	6060
cctggagaga	tgggcctgag	aggacaagt	gggcctcctg	gcgaccttgg	cctcccgggc	6120
aggaccggtg	ctcccggccc	ccaggggccc	cctggaaagt	ccactgcca	gggcgagagg	6180
ggcttccctg	gagcagatgg	gcgtccaggc	agccctggcc	gcgccgggaa	tcctgggacc	6240
cctggagccc	ctggcctaaa	gggctctcca	gggttgccctg	gccctcgtgg	ggaccgggga	6300
gagcgaggac	ctcgaggccc	aaagggggag	ccgggggctc	ccggacaagt	catcggagg	6360
gaaggacctg	ggcttcctgg	gcggaaaagg	gaccctggac	catcgggccc	ccctggacct	6420
cgtggaccac	tgggggaccc	aggacccgt	ggccccccag	ggcttcctgg	aacagccatg	6480
aagggtgaca	aaggcgatcg	tggggagcgg	ggtccccctg	gaccaggtga	aggtggcatt	6540
gctcctgggg	agcctgggct	gccgggtctt	cccgggaagcc	ctggacccca	aggccccgtt	6600
ggccccctg	gaaagaaaagg	agaaaaaggt	gactctgagg	atggagctcc	aggcctccca	6660
ggacaacctg	ggtctccggg	tgagcagggc	ccacggggac	ctcctggagc	tattggcccc	6720
aaaggtgacc	ggggctttcc	agggccctg	ggtgaggctg	gagagaaggg	cgaacgtgga	6780

ccccaggcc	cagcgggatc	ccgggggctg	ccagggggtt	ctggacgtcc	tggagccaag	6840
ggctctgaag	ggccaccagg	acccactggc	cgccaaggag	agaaggggga	gcctggtcgc	6900
cctggggacc	ctgcagtggg	gggacctgct	gttgctggac	ccaaaggaga	aaaggagat	6960
gtggggcccg	ctggggccag	aggagctacc	ggagtccaag	gggaacgggg	cccacccggc	7020
ttggttcttc	ctggagaccc	tggccccaag	ggagaccctg	gagaccgggg	tcccattggc	7080
cttactggca	gagcaggacc	cccagggtgac	tcagggcctc	ctggagagaa	gggagaccct	7140
gggcggcctg	gccccccagg	acctgttggc	ccccgaggac	gagatggtga	agttggagag	7200
aaaggtgacg	agggtcctcc	gggtgacccg	ggtttgctg	gaaaagcagg	cgagcgtggc	7260
cttcgggggg	cacctggagt	tcgggggcct	gtgggtgaaa	agggagacca	gggagatcct	7320
ggagaggatg	gacgaaatgg	cagccctgga	tcactctggac	ccaagggtga	ccgtggggag	7380
ccgggtcccc	caggaccccc	gggacggctg	gtagacacag	gacctggagc	cagagagaag	7440
ggagagcctg	gggaccgcgg	acaagagggt	cctcgagggc	ccaagggtga	tcctggcctc	7500
cctggagccc	ctggggaaag	gggcattgaa	gggtttcggg	gacccccagg	cccacagggg	7560
gacccagggt	tccgaggccc	agcaggagaa	aagggtgacc	gggggtcccc	tgggctggat	7620
ggccggagcg	gactggatgg	gaaaccagga	gccgctgggc	cctctgggcc	gaatggtgct	7680
gcaggcaaa	ctggggaccc	agggagagac	gggcttccag	gcctccgtgg	agaacagggc	7740
ctccctggcc	cctctgggtc	ccctggatta	ccgggaaaag	caggcgagga	tggcaaacct	7800
ggcctgaatg	gaaaaaacgg	agaacctggg	gaccttgagg	aagacgggag	gaaggagag	7860
aaaggagatt	caggcgcttc	tgggagagaa	ggtcgtgatg	gccccaaagg	tgagcgtgga	7920
gctcctggta	tccttggaac	ccaggggcct	ccaggcctcc	cagggccagt	gggcccctcct	7980
ggccagggtt	ttcctgggtg	cccaggaggc	acgggcccc	agggtgaccg	tggggagact	8040
ggatccaaa	gggagcaggg	cctccctgga	gagcgtggcc	tgcgaggaga	gcctggaagt	8100
gtgccgaatg	tggatcggtt	gctggaaact	gctggcatca	aggcatctgc	cctgcgggag	8160
atcgtggaga	cctgggatga	gagctctggt	agcttcctgc	ctgtgcccga	acggcgtcga	8220
ggccccaagg	gggactcagg	cgaacagggc	cccccaggca	aggaggggccc	catcggtctt	8280
cctggagaac	gcgggctgaa	gggcgaccgt	ggagaccctg	gccctcaggg	gccacctggt	8340
ctggcccttg	gggagagggg	cccccccggg	ccttcgggcc	ttgccgggga	gcctggaaag	8400
cctggtattc	ccgggctccc	aggcagggct	gggggtgtgg	gagaggcagg	aaggccagga	8460
gagaggggag	aacgggggaga	gaaaggagaa	cgtggagaac	agggcagaga	tggccctcct	8520
ggactccctg	gaacccctgg	gccccccgga	ccccctggcc	ccaagggtgc	tgtggatgag	8580
ccaggtcctg	gactctctgg	agaacaggga	ccccctggac	tcaagggtgc	taagggggag	8640
ccgggcagca	atggtgacca	agggtccaaa	ggagacaggg	gtgtgccagg	catcaaagga	8700
gaccggggag	agcctggacc	gaggggtcag	gacggcaacc	cgggtctacc	aggagagcgt	8760
ggtatggctg	ggcctgaagg	gaagccgggt	ctgcagggtc	caagaggccc	ccctggccca	8820
gtgggtggtc	atggagaccc	tggaccacct	gggtccccgg	gtcttgctgg	ccctgcagga	8880
ccccaaagg	cttctggcct	gaagggggag	cctggagaga	caggacctcc	aggacggggc	8940
ctgactggac	ctactggagc	tgtgggactt	cctggacccc	ccggcccttc	aggccttgtg	9000
ggtccacagg	ggtctccagg	tttgcttgga	caagtggggg	agacagggaa	gccgggagcc	9060
ccaggtcgag	atggtgccag	tggaaaaag	ggagacagag	ggagccctgg	tgtgccaggg	9120
tcaccagggt	tgcctggccc	tgtcggacct	aaaggagaac	ctggccccac	ggggggcccct	9180
ggacaggctg	tggctgggct	ccctggagca	aagggagaga	agggagcccc	tggaggcctt	9240
gctggagacc	tgggtgggtga	gccgggagcc	aaaggtgacc	gaggactgcc	agggccgcga	9300
ggcgagaagg	gtgaagctgg	ccgtgcaggg	gagcccggag	accctgggga	agatggtcag	9360
aaaggggctc	caggacccaa	aggtttcaag	ggtgaccag	gagtcggggg	cccgggctcc	9420
cctgggcctc	ctggccctcc	agggtggaag	ggagatctgg	gcctccctgg	cctgcccggg	9480
gctcctgggt	ttgttgggtt	cccgggtcag	acaggccctc	gaggagagat	gggtcagcca	9540
ggccctagt	gagagcgggg	tctggcaggc	cccccaggga	gagaagggaat	cccaggaccc	9600
ctggggccac	ctggaccacc	ggggctcagt	ggaccacctg	gggcctctgg	actcaaagga	9660
gacaagggag	accctggagt	agggtgcct	gggccccgag	gcgagcgtgg	ggagccaggc	9720
atccgggggt	aagatggccg	ccccggccag	gagggaaccc	gaggactcac	ggggccccct	9780

```

ggcagcaggg gagagcgtgg ggagaagggt gatgttggga gtgcaggact aaagggtgac 9840
aaggagagact cagctgtgat cctggggcct ccaggcccac ggggtgccaa gggggacatg 9900
ggtgaacgag ggccctcgggg cttggatggt gacaaaaggac ctcggggaga caatggggac 9960
cctggtgaca agggcagcaa gggagagcct ggtgacaagg gctcagccgg gttgccagga 10020
ctgcgtggac tcctgggacc ccagggtcaa cctggtgcag cagggatccc tggtgacccg 10080
ggatccccag gaaaggatgg agtgcctggt atccgaggag aaaaaggaga tgttggcttc 10140
atgggtcccc ggggcctcaa ggggtgaacgg ggagtgaagg gagcctgtgg ccttgatgga 10200
gagaagggag acaagggaga agctggtccc ccaggccgcc ccgggctggc aggacacaaa 10260
ggagagatgg gggagcctgg tgtgccgggc cagtcggggg cccctggcaa ggagggcctg 10320
atcggtccca agggtgaccg aggctttgac gggcagccag gccccagggg tgaccagggc 10380
gagaaagggg agcggggaac cccaggaatt gggggcttcc caggccccag tggaaatgat 10440
ggctctgctg gtccccagg gccacctggc agtgttggtc ccaggagccc cgaaggactt 10500
cagggccaga agggtgagcg aggtcccccc ggagagagag tggtaggggc tcctggggtc 10560
cctggagctc ctggcgagag aggggagcag gggcggccag ggcctgccgg tcctcgaggc 10620
gagaagggag aagctgcact gacggaggat gacatccggg gctttgtgcg ccaagagatg 10680
agtcagcact gtgcctgcc gggccagttc atcgcatctg gatcacgacc cctccctagt 10740
tatgctgcag aactgcccgg ctcccagctc catgctgtgc ctgtgctccg cgtctctcat 10800
gcagaggagg aagagcgggt accccctgag gatgatgagt actctgaata ctccgagtat 10860
tctgtggagg agtaccagga ccctgaagct ccttgggata gtgatgaccc ctgttccctg 10920
ccactggatg agggctcctg cactgcctac accctgcgct ggtaccatcg ggctgtgaca 10980
ggcagcacag aggcctgtca cccttttgtc tatgggtggc gtggagggaa tgccaaccgt 11040
tttgggaccc gtgaggcctg cgagcgccgc tgcccacccc ggggtggtcca gagccagggg 11100
acaggtactg cccaggactg a                                     11121

```

<210> 16

<211> 3706

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 16

```

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

```

130		135		140	
Trp	Pro	Glu	Trp	Gly	Leu
145		150		155	
Lys	Arg	Phe	Leu	Asn	Ser
		165		170	
His	Gln	Ile	Val	Arg	Gln
		180		185	
Leu	Phe	Tyr	Thr	Arg	Leu
		195		200	
Ser	Leu	Asn	Leu	Asp	His
		210		215	
Ala	Leu	Asp	Glu	Val	Val
225				230	
Arg	Asn	Val	Ala	Tyr	Asp
				245	
Pro	Thr	Lys	Leu	Gln	Leu
				260	
Trp	Thr	Pro	Glu	Gly	Gly
				275	
Leu	Pro	Gly	Gly	Gln	Pro
				290	
Glu	Gln	Pro	Thr	Pro	Phe
305				310	
Leu	Asp	Tyr	Pro	Pro	Asp
				325	
Val	Phe	His	Glu	Pro	His
				340	
His	Phe	Ser	Ala	Val	Lys
				355	
Gly	Glu	Ala	Arg	Asp	Met
				370	
Cys	Glu	Phe	Tyr	Phe	Ser
385				390	
Gln	Thr	Leu	Arg	Ile	Leu
				405	
Met	Leu	Ser	Arg	His	Gly
				420	
Ser	Pro	Asp	Glu	Tyr	Tyr
				435	
Gln	Arg	Lys	Arg	Val	Gly
				450	
Tyr	Val	Ile	Arg	Gly	Asp
465				470	
Val	Phe	Ser	Gly	Ser	Asp
				485	
Phe	Arg	Asp	Lys	Gly	Ile
				500	
Gly	Arg	Leu	Leu	Ala	Thr
				515	
Asp	Leu	Trp	Gln	Ile	Phe

530		535		540	
Ile His Glu Asn Tyr Ser Arg Ala Leu Glu Gly Glu Gly Ile Val Glu					
545		550		555	560
Gln Pro Cys Pro Asp Val Tyr Trp Phe Pro Leu Leu Ser Glu Gln Met					
		565		570	575
Cys Asp Glu Leu Val Ala Glu Met Glu His Tyr Gly Gln Trp Ser Gly					
		580		585	590
Gly Arg His Glu Asp Ser Arg Leu Ala Gly Gly Tyr Glu Asn Val Pro					
		595		600	605
Thr Val Asp Ile His Met Lys Gln Val Gly Tyr Glu Asp Gln Trp Leu					
		610		615	620
Gln Leu Leu Arg Thr Tyr Val Gly Pro Met Thr Glu Ser Leu Phe Pro					
625		630		635	640
Gly Tyr His Thr Lys Ala Arg Ala Val Met Asn Phe Val Val Arg Tyr					
		645		650	655
Arg Pro Asp Glu Gln Pro Ser Leu Arg Pro His His Asp Ser Ser Thr					
		660		665	670
Phe Thr Leu Asn Val Ala Leu Asn His Lys Gly Leu Asp Tyr Glu Gly					
		675		680	685
Gly Gly Cys Arg Phe Leu Arg Tyr Asp Cys Val Ile Ser Ser Pro Arg					
		690		695	700
Lys Gly Trp Ala Leu Leu His Pro Gly Arg Leu Thr His Tyr His Glu					
705		710		715	720
Gly Leu Pro Thr Thr Trp Gly Thr Arg Tyr Ile Met Val Ser Phe Val					
		725		730	735
Asp Pro Arg Ala Lys Arg Gly Ser Gly Glu Gly Arg Gly Ser Leu Leu					
		740		745	750
Thr Cys Gly Asp Val Glu Glu Asn Pro Gly Pro Thr Leu Arg Leu Leu					
		755		760	765
Val Ala Ala Leu Cys Ala Gly Ile Leu Ala Glu Ala Pro Arg Val Arg					
		770		775	780
Ala Gln His Arg Glu Arg Val Thr Cys Thr Arg Leu Tyr Ala Ala Asp					
785		790		795	800
Ile Val Phe Leu Leu Asp Gly Ser Ser Ser Ile Gly Arg Ser Asn Phe					
		805		810	815
Arg Glu Val Arg Ser Phe Leu Glu Gly Leu Val Leu Pro Phe Ser Gly					
		820		825	830
Ala Ala Ser Ala Gln Gly Val Arg Phe Ala Thr Val Gln Tyr Ser Asp					
		835		840	845
Asp Pro Arg Thr Glu Phe Gly Leu Asp Ala Leu Gly Ser Gly Gly Asp					
		850		855	860
Val Ile Arg Ala Ile Arg Glu Leu Ser Tyr Lys Gly Gly Asn Thr Arg					
865		870		875	880
Thr Gly Ala Ala Ile Leu His Val Ala Asp His Val Phe Leu Pro Gln					
		885		890	895
Leu Ala Arg Pro Gly Val Pro Lys Val Cys Ile Leu Ile Thr Asp Gly					
		900		905	910
Lys Ser Gln Asp Leu Val Asp Thr Ala Ala Gln Arg Leu Lys Gly Gln					
		915		920	925
Gly Val Lys Leu Phe Ala Val Gly Ile Lys Asn Ala Asp Pro Glu Glu					

930		935		940	
Leu Lys Arg Val Ala Ser Gln Pro Thr Ser Asp Phe Phe Phe Phe Val					
945		950		955	960
Asn Asp Phe Ser Ile Leu Arg Thr Leu Leu Pro Leu Val Ser Arg Arg					
	965		970		975
Val Cys Thr Thr Ala Gly Gly Val Pro Val Thr Arg Pro Pro Asp Asp					
	980		985		990
Ser Thr Ser Ala Pro Arg Asp Leu Val Leu Ser Glu Pro Ser Ser Gln					
	995	1000		1005	
Ser Leu Arg Val Gln Trp Thr Ala Ala Ser Gly Pro Val Thr Gly Tyr					
1010		1015		1020	
Lys Val Gln Tyr Thr Pro Leu Thr Gly Leu Gly Gln Pro Leu Pro Ser					
1025		1030		1035	1040
Glu Arg Gln Glu Val Asn Val Pro Ala Gly Glu Thr Ser Val Arg Leu					
	1045		1050		1055
Arg Gly Leu Arg Pro Leu Thr Glu Tyr Gln Val Thr Val Ile Ala Leu					
	1060		1065		1070
Tyr Ala Asn Ser Ile Gly Glu Ala Val Ser Gly Thr Ala Arg Thr Thr					
	1075		1080		1085
Ala Leu Glu Gly Pro Glu Leu Thr Ile Gln Asn Thr Thr Ala His Ser					
1090		1095		1100	
Leu Leu Val Ala Trp Arg Ser Val Pro Gly Ala Thr Gly Tyr Arg Val					
1105		1110		1115	1120
Thr Trp Arg Val Leu Ser Gly Gly Pro Thr Gln Gln Gln Glu Leu Gly					
	1125		1130		1135
Pro Gly Gln Gly Ser Val Leu Leu Arg Asp Leu Glu Pro Gly Thr Asp					
	1140		1145		1150
Tyr Glu Val Thr Val Ser Thr Leu Phe Gly Arg Ser Val Gly Pro Ala					
	1155		1160		1165
Thr Ser Leu Met Ala Arg Thr Asp Ala Ser Val Glu Gln Thr Leu Arg					
1170		1175		1180	
Pro Val Ile Leu Gly Pro Thr Ser Ile Leu Leu Ser Trp Asn Leu Val					
1185		1190		1195	1200
Pro Glu Ala Arg Gly Tyr Arg Leu Glu Trp Arg Arg Glu Thr Gly Leu					
	1205		1210		1215
Glu Pro Pro Gln Lys Val Val Leu Pro Ser Asp Val Thr Arg Tyr Gln					
	1220		1225		1230
Leu Asp Gly Leu Gln Pro Gly Thr Glu Tyr Arg Leu Thr Leu Tyr Thr					
	1235		1240		1245
Leu Leu Glu Gly His Glu Val Ala Thr Pro Ala Thr Val Val Pro Thr					
1250		1255		1260	
Gly Pro Glu Leu Pro Val Ser Pro Val Thr Asp Leu Gln Ala Thr Glu					
1265		1270		1275	1280
Leu Pro Gly Gln Arg Val Arg Val Ser Trp Ser Pro Val Pro Gly Ala					
	1285		1290		1295
Thr Gln Tyr Arg Ile Ile Val Arg Ser Thr Gln Gly Val Glu Arg Thr					
	1300		1305		1310
Leu Val Leu Pro Gly Ser Gln Thr Ala Phe Asp Leu Asp Asp Val Gln					
	1315		1320		1325
Ala Gly Leu Ser Tyr Thr Val Arg Val Ser Ala Arg Val Gly Pro Arg					

1330	1335	1340
Glu Gly Ser Ala Ser Val Leu Thr Val Arg Arg Glu Pro Glu Thr Pro		
1345	1350	1355
Leu Ala Val Pro Gly Leu Arg Val Val Val Ser Asp Ala Thr Arg Val		1360
	1365	1370
Arg Val Ala Trp Gly Pro Val Pro Gly Ala Ser Gly Phe Arg Ile Ser		1375
	1380	1385
Trp Ser Thr Gly Ser Gly Pro Glu Ser Ser Gln Thr Leu Pro Pro Asp		1390
	1395	1400
Ser Thr Ala Thr Asp Ile Thr Gly Leu Gln Pro Gly Thr Thr Tyr Gln		1405
	1410	1415
Val Ala Val Ser Val Leu Arg Gly Arg Glu Glu Gly Pro Ala Ala Val		1420
1425	1430	1435
Ile Val Ala Arg Thr Asp Pro Leu Gly Pro Val Arg Thr Val His Val		1440
	1445	1450
Thr Gln Ala Ser Ser Ser Ser Val Thr Ile Thr Trp Thr Arg Val Pro		1455
	1460	1465
Gly Ala Thr Gly Tyr Arg Val Ser Trp His Ser Ala His Gly Pro Glu		1470
	1475	1480
Lys Ser Gln Leu Val Ser Gly Glu Ala Thr Val Ala Glu Leu Asp Gly		1485
	1490	1495
Leu Glu Pro Asp Thr Glu Tyr Thr Val His Val Arg Ala His Val Ala		1500
1505	1510	1515
Gly Val Asp Gly Pro Pro Ala Ser Val Val Val Arg Thr Ala Pro Glu		1520
	1525	1530
Pro Val Gly Arg Val Ser Arg Leu Gln Ile Leu Asn Ala Ser Ser Asp		1535
	1540	1545
Val Leu Arg Ile Thr Trp Val Gly Val Thr Gly Ala Thr Ala Tyr Arg		1550
	1555	1560
Leu Ala Trp Gly Arg Ser Glu Gly Gly Pro Met Arg His Gln Ile Leu		1565
1570	1575	1580
Pro Gly Asn Thr Asp Ser Ala Glu Ile Arg Gly Leu Glu Gly Gly Val		1585
	1590	1595
Ser Tyr Ser Val Arg Val Thr Ala Leu Val Gly Asp Arg Glu Gly Thr		1600
	1605	1610
Pro Val Ser Ile Val Val Thr Thr Pro Pro Glu Ala Pro Pro Ala Leu		1615
	1620	1625
Gly Thr Leu His Val Val Gln Arg Gly Glu His Ser Leu Arg Leu Arg		1630
	1635	1640
Trp Glu Pro Val Pro Arg Ala Gln Gly Phe Leu Leu His Trp Gln Pro		1645
	1650	1655
Glu Gly Gly Gln Glu Gln Ser Arg Val Leu Gly Pro Glu Leu Ser Ser		1660
1665	1670	1675
Tyr His Leu Asp Gly Leu Glu Pro Ala Thr Gln Tyr Arg Val Arg Leu		1680
	1685	1690
Ser Val Leu Gly Pro Ala Gly Glu Gly Pro Ser Ala Glu Val Thr Ala		1695
	1700	1705
Arg Thr Glu Ser Pro Arg Val Pro Ser Ile Glu Leu Arg Val Val Asp		1710
	1715	1720
Thr Ser Ile Asp Ser Val Thr Leu Ala Trp Thr Pro Val Ser Arg Ala		1725

1730	1735	1740
Ser Ser Tyr Ile Leu	Ser Trp Arg Pro Leu	Arg Gly Pro Gly Gln Glu
1745	1750	1755
Val Pro Gly Ser Pro	Gln Thr Leu Pro Gly	Ile Ser Ser Ser Gln Arg
1765	1770	1775
Val Thr Gly Leu Glu	Pro Gly Val Ser Tyr	Ile Phe Ser Leu Thr Pro
1780	1785	1790
Val Leu Asp Gly Val	Arg Gly Pro Glu Ala	Ser Val Thr Gln Thr Pro
1795	1800	1805
Val Cys Pro Arg Gly	Leu Ala Asp Val Val	Phe Leu Pro His Ala Thr
1810	1815	1820
Gln Asp Asn Ala His	Arg Ala Glu Ala Thr	Arg Arg Val Leu Glu Arg
1825	1830	1835
Leu Val Leu Ala Leu	Gly Pro Leu Gly Pro	Gln Ala Val Gln Val Gly
1845	1850	1855
Leu Leu Ser Tyr Ser	His Arg Pro Ser Pro	Leu Phe Pro Leu Asn Gly
1860	1865	1870
Ser His Asp Leu Gly	Ile Ile Leu Gln Arg	Ile Arg Asp Met Pro Tyr
1875	1880	1885
Met Asp Pro Ser Gly	Asn Asn Leu Gly Thr	Ala Val Val Thr Ala His
1890	1895	1900
Arg Tyr Met Leu Ala	Pro Asp Ala Pro Gly	Arg Arg Gln His Val Pro
1905	1910	1915
Gly Val Met Val Leu	Leu Val Asp Glu Pro	Leu Arg Gly Asp Ile Phe
1925	1930	1935
Ser Pro Ile Arg Glu	Ala Gln Ala Ser Gly	Leu Asn Val Val Met Leu
1940	1945	1950
Gly Met Ala Gly Ala	Asp Pro Glu Gln Leu	Arg Arg Leu Ala Pro Gly
1955	1960	1965
Met Asp Ser Val Gln	Thr Phe Phe Ala Val	Asp Asp Gly Pro Ser Leu
1970	1975	1980
Asp Gln Ala Val Ser	Gly Leu Ala Thr Ala	Leu Cys Gln Ala Ser Phe
1985	1990	1995
Thr Thr Gln Pro Arg	Pro Glu Pro Cys Pro	Val Tyr Cys Pro Lys Gly
2005	2010	2015
Gln Lys Gly Glu Pro	Gly Glu Met Gly Leu	Arg Gly Gln Val Gly Pro
2020	2025	2030
Pro Gly Asp Pro Gly	Leu Pro Gly Arg Thr	Gly Ala Pro Gly Pro Gln
2035	2040	2045
Gly Pro Pro Gly Ser	Ala Thr Ala Lys Gly	Glu Arg Gly Phe Pro Gly
2050	2055	2060
Ala Asp Gly Arg Pro	Gly Ser Pro Gly Arg	Ala Gly Asn Pro Gly Thr
2065	2070	2075
Pro Gly Ala Pro Gly	Leu Lys Gly Ser Pro	Gly Leu Pro Gly Pro Arg
2085	2090	2095
Gly Asp Pro Gly Glu	Arg Gly Pro Arg Gly	Pro Lys Gly Glu Pro Gly
2100	2105	2110
Ala Pro Gly Gln Val	Ile Gly Gly Glu Gly	Pro Gly Leu Pro Gly Arg
2115	2120	2125
Lys Gly Asp Pro Gly	Pro Ser Gly Pro Pro	Gly Pro Arg Gly Pro Leu

2130	2135	2140
Gly Asp Pro Gly Pro Arg	Gly Pro Pro Gly Leu Pro Gly Thr Ala Met	
2145	2150	2155
Lys Gly Asp Lys Gly Asp Arg	Gly Glu Arg Gly Pro Pro Gly Pro Gly	2160
2165	2170	2175
Glu Gly Gly Ile Ala Pro Gly Glu Pro Gly Leu Pro Gly Leu Pro Gly		
2180	2185	2190
Ser Pro Gly Pro Gln Gly Pro Val Gly Pro Pro Gly Lys Lys Gly Glu		
2195	2200	2205
Lys Gly Asp Ser Glu Asp Gly Ala Pro Gly Leu Pro Gly Gln Pro Gly		
2210	2215	2220
Ser Pro Gly Glu Gln Gly Pro Arg Gly Pro Pro Gly Ala Ile Gly Pro		
2225	2230	2235
Lys Gly Asp Arg Gly Phe Pro Gly Pro Leu Gly Glu Ala Gly Glu Lys		
2245	2250	2255
Gly Glu Arg Gly Pro Pro Gly Pro Ala Gly Ser Arg Gly Leu Pro Gly		
2260	2265	2270
Val Ala Gly Arg Pro Gly Ala Lys Gly Pro Glu Gly Pro Pro Gly Pro		
2275	2280	2285
Thr Gly Arg Gln Gly Glu Lys Gly Glu Pro Gly Arg Pro Gly Asp Pro		
2290	2295	2300
Ala Val Val Gly Pro Ala Val Ala Gly Pro Lys Gly Glu Lys Gly Asp		
2305	2310	2315
Val Gly Pro Ala Gly Pro Arg Gly Ala Thr Gly Val Gln Gly Glu Arg		
2325	2330	2335
Gly Pro Pro Gly Leu Val Leu Pro Gly Asp Pro Gly Pro Lys Gly Asp		
2340	2345	2350
Pro Gly Asp Arg Gly Pro Ile Gly Leu Thr Gly Arg Ala Gly Pro Pro		
2355	2360	2365
Gly Asp Ser Gly Pro Pro Gly Glu Lys Gly Asp Pro Gly Arg Pro Gly		
2370	2375	2380
Pro Pro Gly Pro Val Gly Pro Arg Gly Arg Asp Gly Glu Val Gly Glu		
2385	2390	2395
Lys Gly Asp Glu Gly Pro Pro Gly Asp Pro Gly Leu Pro Gly Lys Ala		
2405	2410	2415
Gly Glu Arg Gly Leu Arg Gly Ala Pro Gly Val Arg Gly Pro Val Gly		
2420	2425	2430
Glu Lys Gly Asp Gln Gly Asp Pro Gly Glu Asp Gly Arg Asn Gly Ser		
2435	2440	2445
Pro Gly Ser Ser Gly Pro Lys Gly Asp Arg Gly Glu Pro Gly Pro Pro		
2450	2455	2460
Gly Pro Pro Gly Arg Leu Val Asp Thr Gly Pro Gly Ala Arg Glu Lys		
2465	2470	2475
Gly Glu Pro Gly Asp Arg Gly Gln Glu Gly Pro Arg Gly Pro Lys Gly		
2485	2490	2495
Asp Pro Gly Leu Pro Gly Ala Pro Gly Glu Arg Gly Ile Glu Gly Phe		
2500	2505	2510
Arg Gly Pro Pro Gly Pro Gln Gly Asp Pro Gly Val Arg Gly Pro Ala		
2515	2520	2525
Gly Glu Lys Gly Asp Arg Gly Pro Pro Gly Leu Asp Gly Arg Ser Gly		

2530	2535	2540
Leu Asp Gly Lys Pro Gly Ala Ala Gly Pro Ser Gly Pro Asn Gly Ala		
2545	2550	2555
Ala Gly Lys Ala Gly Asp Pro Gly Arg Asp Gly Leu Pro Gly Leu Arg		2560
	2565	2570
Gly Glu Gln Gly Leu Pro Gly Pro Ser Gly Pro Pro Gly Leu Pro Gly		2575
	2580	2585
Lys Pro Gly Glu Asp Gly Lys Pro Gly Leu Asn Gly Lys Asn Gly Glu		2590
	2595	2600
Pro Gly Asp Pro Gly Glu Asp Gly Arg Lys Gly Glu Lys Gly Asp Ser		2605
	2610	2615
Gly Ala Ser Gly Arg Glu Gly Arg Asp Gly Pro Lys Gly Glu Arg Gly		2620
2625	2630	2635
Ala Pro Gly Ile Leu Gly Pro Gln Gly Pro Pro Gly Leu Pro Gly Pro		2640
	2645	2650
Val Gly Pro Pro Gly Gln Gly Phe Pro Gly Val Pro Gly Gly Thr Gly		2655
	2660	2665
Pro Lys Gly Asp Arg Gly Glu Thr Gly Ser Lys Gly Glu Gln Gly Leu		2670
	2675	2680
Pro Gly Glu Arg Gly Leu Arg Gly Glu Pro Gly Ser Val Pro Asn Val		2685
	2690	2695
Asp Arg Leu Leu Glu Thr Ala Gly Ile Lys Ala Ser Ala Leu Arg Glu		2700
2705	2710	2715
Ile Val Glu Thr Trp Asp Glu Ser Ser Gly Ser Phe Leu Pro Val Pro		2720
	2725	2730
Glu Arg Arg Arg Gly Pro Lys Gly Asp Ser Gly Glu Gln Gly Pro Pro		2735
	2740	2745
Gly Lys Glu Gly Pro Ile Gly Phe Pro Gly Glu Arg Gly Leu Lys Gly		2750
	2755	2760
Asp Arg Gly Asp Pro Gly Pro Gln Gly Pro Pro Gly Leu Ala Leu Gly		2765
	2770	2775
Glu Arg Gly Pro Pro Gly Pro Ser Gly Leu Ala Gly Glu Pro Gly Lys		2780
2785	2790	2795
Pro Gly Ile Pro Gly Leu Pro Gly Arg Ala Gly Gly Val Gly Glu Ala		2800
	2805	2810
Gly Arg Pro Gly Glu Arg Gly Glu Arg Gly Glu Lys Gly Glu Arg Gly		2815
	2820	2825
Glu Gln Gly Arg Asp Gly Pro Pro Gly Leu Pro Gly Thr Pro Gly Pro		2830
	2835	2840
Pro Gly Pro Pro Gly Pro Lys Val Ser Val Asp Glu Pro Gly Pro Gly		2845
	2850	2855
Leu Ser Gly Glu Gln Gly Pro Pro Gly Leu Lys Gly Ala Lys Gly Glu		2860
2865	2870	2875
Pro Gly Ser Asn Gly Asp Gln Gly Pro Lys Gly Asp Arg Gly Val Pro		2880
	2885	2890
Gly Ile Lys Gly Asp Arg Gly Glu Pro Gly Pro Arg Gly Gln Asp Gly		2895
	2900	2905
Asn Pro Gly Leu Pro Gly Glu Arg Gly Met Ala Gly Pro Glu Gly Lys		2910
	2915	2920
Pro Gly Leu Gln Gly Pro Arg Gly Pro Pro Gly Pro Val Gly Gly His		2925

2930	2935	2940
Gly Asp Pro Gly Pro Pro Gly Ala Pro Gly Leu Ala Gly Pro Ala Gly		
2945	2950	2955
Pro Gln Gly Pro Ser Gly Leu Lys Gly Glu Pro Gly Glu Thr Gly Pro		
2965	2970	2975
Pro Gly Arg Gly Leu Thr Gly Pro Thr Gly Ala Val Gly Leu Pro Gly		
2980	2985	2990
Pro Pro Gly Pro Ser Gly Leu Val Gly Pro Gln Gly Ser Pro Gly Leu		
2995	3000	3005
Pro Gly Gln Val Gly Glu Thr Gly Lys Pro Gly Ala Pro Gly Arg Asp		
3010	3015	3020
Gly Ala Ser Gly Lys Asp Gly Asp Arg Gly Ser Pro Gly Val Pro Gly		
3025	3030	3035
Ser Pro Gly Leu Pro Gly Pro Val Gly Pro Lys Gly Glu Pro Gly Pro		
3045	3050	3055
Thr Gly Ala Pro Gly Gln Ala Val Val Gly Leu Pro Gly Ala Lys Gly		
3060	3065	3070
Glu Lys Gly Ala Pro Gly Gly Leu Ala Gly Asp Leu Val Gly Glu Pro		
3075	3080	3085
Gly Ala Lys Gly Asp Arg Gly Leu Pro Gly Pro Arg Gly Glu Lys Gly		
3090	3095	3100
Glu Ala Gly Arg Ala Gly Glu Pro Gly Asp Pro Gly Glu Asp Gly Gln		
3105	3110	3115
Lys Gly Ala Pro Gly Pro Lys Gly Phe Lys Gly Asp Pro Gly Val Gly		
3125	3130	3135
Val Pro Gly Ser Pro Gly Pro Pro Gly Pro Pro Gly Val Lys Gly Asp		
3140	3145	3150
Leu Gly Leu Pro Gly Leu Pro Gly Ala Pro Gly Val Val Gly Phe Pro		
3155	3160	3165
Gly Gln Thr Gly Pro Arg Gly Glu Met Gly Gln Pro Gly Pro Ser Gly		
3170	3175	3180
Glu Arg Gly Leu Ala Gly Pro Pro Gly Arg Glu Gly Ile Pro Gly Pro		
3185	3190	3195
Leu Gly Pro Pro Gly Pro Pro Gly Ser Val Gly Pro Pro Gly Ala Ser		
3205	3210	3215
Gly Leu Lys Gly Asp Lys Gly Asp Pro Gly Val Gly Leu Pro Gly Pro		
3220	3225	3230
Arg Gly Glu Arg Gly Glu Pro Gly Ile Arg Gly Glu Asp Gly Arg Pro		
3235	3240	3245
Gly Gln Glu Gly Pro Arg Gly Leu Thr Gly Pro Pro Gly Ser Arg Gly		
3250	3255	3260
Glu Arg Gly Glu Lys Gly Asp Val Gly Ser Ala Gly Leu Lys Gly Asp		
3265	3270	3275
Lys Gly Asp Ser Ala Val Ile Leu Gly Pro Pro Gly Pro Arg Gly Ala		
3285	3290	3295
Lys Gly Asp Met Gly Glu Arg Gly Pro Arg Gly Leu Asp Gly Asp Lys		
3300	3305	3310
Gly Pro Arg Gly Asp Asn Gly Asp Pro Gly Asp Lys Gly Ser Lys Gly		
3315	3320	3325
Glu Pro Gly Asp Lys Gly Ser Ala Gly Leu Pro Gly Leu Arg Gly Leu		

3330	3335	3340
Leu Gly Pro Gln Gly Gln Pro Gly Ala Ala Gly Ile Pro Gly Asp Pro		
3345	3350	3355
Gly Ser Pro Gly Lys Asp Gly Val Pro Gly Ile Arg Gly Glu Lys Gly		3360
3365	3370	3375
Asp Val Gly Phe Met Gly Pro Arg Gly Leu Lys Gly Glu Arg Gly Val		
3380	3385	3390
Lys Gly Ala Cys Gly Leu Asp Gly Glu Lys Gly Asp Lys Gly Glu Ala		
3395	3400	3405
Gly Pro Pro Gly Arg Pro Gly Leu Ala Gly His Lys Gly Glu Met Gly		
3410	3415	3420
Glu Pro Gly Val Pro Gly Gln Ser Gly Ala Pro Gly Lys Glu Gly Leu		
3425	3430	3435
Ile Gly Pro Lys Gly Asp Arg Gly Phe Asp Gly Gln Pro Gly Pro Lys		3440
3445	3450	3455
Gly Asp Gln Gly Glu Lys Gly Glu Arg Gly Thr Pro Gly Ile Gly Gly		
3460	3465	3470
Phe Pro Gly Pro Ser Gly Asn Asp Gly Ser Ala Gly Pro Pro Gly Pro		
3475	3480	3485
Pro Gly Ser Val Gly Pro Arg Gly Pro Glu Gly Leu Gln Gly Gln Lys		
3490	3495	3500
Gly Glu Arg Gly Pro Pro Gly Glu Arg Val Val Gly Ala Pro Gly Val		
3505	3510	3515
Pro Gly Ala Pro Gly Glu Arg Gly Glu Gln Gly Arg Pro Gly Pro Ala		3520
3525	3530	3535
Gly Pro Arg Gly Glu Lys Gly Glu Ala Ala Leu Thr Glu Asp Asp Ile		
3540	3545	3550
Arg Gly Phe Val Arg Gln Glu Met Ser Gln His Cys Ala Cys Gln Gly		
3555	3560	3565
Gln Phe Ile Ala Ser Gly Ser Arg Pro Leu Pro Ser Tyr Ala Ala Asp		
3570	3575	3580
Thr Ala Gly Ser Gln Leu His Ala Val Pro Val Leu Arg Val Ser His		
3585	3590	3595
Ala Glu Glu Glu Glu Arg Val Pro Pro Glu Asp Asp Glu Tyr Ser Glu		
3605	3610	3615
Tyr Ser Glu Tyr Ser Val Glu Glu Tyr Gln Asp Pro Glu Ala Pro Trp		
3620	3625	3630
Asp Ser Asp Asp Pro Cys Ser Leu Pro Leu Asp Glu Gly Ser Cys Thr		
3635	3640	3645
Ala Tyr Thr Leu Arg Trp Tyr His Arg Ala Val Thr Gly Ser Thr Glu		
3650	3655	3660
Ala Cys His Pro Phe Val Tyr Gly Gly Cys Gly Gly Asn Ala Asn Arg		
3665	3670	3675
Phe Gly Thr Arg Glu Ala Cys Glu Arg Arg Cys Pro Pro Arg Val Val		3680
3685	3690	3695
Gln Ser Gln Gly Thr Gly Thr Ala Gln Asp		
3700	3705	

<211> 11112
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 17

atgacgctgc	ggcttctggt	ggccgcgctc	tgcgccggga	tcctggcaga	ggcgccccga	60
gtgcgagccc	agcacaggga	gagagtgacc	tgcacgcgcc	tttacgccgc	tgacattgtg	120
ttcttactgg	atggctcctc	atccattggc	cgcagcaatt	tccgcgaggt	ccgcagcttt	180
ctcgaagggc	tgggtgctgcc	tttctctgga	gcagccagtg	cacaggggtg	gcgctttgcc	240
acagtgcagt	acagcgatga	cccacggaca	gagttcggcc	tggatgcact	tggctctggg	300
ggtgatgtga	tccgcgccat	ccgtgagctt	agctacaagg	ggggcaacac	tcgcacaggg	360
gctgcaattc	tccatgtggc	tgaccatgtc	ttcctgcccc	agctggcccc	acctggtgtc	420
cccaaggctc	gcatcctgat	cacagacggg	aagtcccagg	acctggtgga	cacagctgcc	480
caaaggctga	aggggcaggg	ggtcaagcta	tttgctgtgg	ggatcaagaa	tgctgaccct	540
gaggagctga	agcgagttgc	ctcacagccc	accagtgact	tcttcttctt	cgtcaatgac	600
ttcagcatct	tgaggacact	actgcccctc	gtttcccgga	gagtgtgcac	gactgctggt	660
ggcgtgcctg	tgacccgacc	tccggatgac	tcgacctctg	ctccacgaga	cctggtgctg	720
tctgagccaa	gcagccaatc	cttgagagta	cagtggacag	cggccagtgg	ccctgtgact	780
ggctacaagg	tccagtacac	tcctctgacg	gggctgggac	agccactgcc	gagtgagcgg	840
caggaggtga	acgtcccagc	tggtgagacc	agtgtgcggc	tgcggggtct	ccggccactg	900
accgagtacc	aagtgactgt	gattgccctc	tacgccaaca	gcatcgggga	ggctgtgagc	960
gggacagctc	ggaccactgc	cctagaaggg	ccggaactga	ccatccagaa	taccacagcc	1020
cacagcctcc	tgggtggcctg	gcggagtgtg	ccagggtgcca	ctggctaccg	tgtgacatgg	1080
cgggtcctca	gtggtggggc	cacacagcag	caggagctgg	gccctgggca	gggttcagtg	1140
ttgctgcgtg	acttgagacc	tggcacggac	tatgagggtga	ccgtgagcac	cctatttggc	1200
cgcagtgtgg	ggcccgccac	ttccctgatg	gctcgcactg	acgcttctgt	tgagcagacc	1260
ctgcgccggg	tcacctctggg	ccccacatcc	atcctccttt	cctggaactt	ggtgcctgag	1320
gcccgtggct	accggttggg	atggcggcgt	gagactggct	tggagccacc	gcagaagggtg	1380
gtactgccct	ctgatgtgac	ccgctaccag	ttggatgggc	tgacgccggg	cactgagtac	1440
cgcctcacac	tctacactct	gctggagggc	cacgagggtg	ccacccctgc	aaccgtggtt	1500
cccactggac	cagagctgcc	tgtgagccct	gtaacagacc	tgcaagccac	cgagctgccc	1560
gggcagcggg	tgcgagtgtc	ctggagccca	gtccctgggtg	ccaccagta	ccgcatcatt	1620
gtgcgcagca	cccagggggg	tgagcggacc	ctggtgcttc	ctgggagtca	gacagcattc	1680
gacttggatg	acgttcaggc	tgggcttagc	tacactgtgc	gggtgtctgc	tcgagtgggt	1740
ccccgtgagg	gcagtgccag	tgtcctcact	gtccgccggg	agccggaaac	tccacttgct	1800
gttccagggc	tgccgggtgt	ggtgtcagat	gcaacgcgag	tgagggtggc	ctggggaccc	1860
gtccctggag	ccagtggatt	tcggattagc	tggagcacag	gcagtgggtc	ggagtccagc	1920
cagacactgc	ccccagactc	tactgccaca	gacatcacag	ggctgcagcc	tgggaaccacc	1980
taccaggtgg	ctgtgtcggg	actgcgaggc	agagaggagg	gccctgctgc	agtcacgtg	2040
gctcgaacgg	accactggg	cccagtgagg	acggtccatg	tgactcaggc	cagcagctca	2100
tctgtcacca	ttacctggac	cagggttcct	ggcgccacag	gatacagggt	ttcctggcac	2160
tcagcccacg	gcccagagaa	atcccagttg	gtttctgggg	aggccacggg	ggctgagctg	2220
gatggactgg	agccagatac	tgagtatacg	gtgcatgtga	gggcccattg	ggctggcgtg	2280
gatgggcccc	ctgcctctgt	ggttgtgagg	actgcccctg	agcctgtggg	tcgtgtgtcg	2340
aggctgcaga	tcctcaatgc	ttccagcgac	gttctacgga	tcacctgggt	aggggtcact	2400
ggagccacag	cttacagact	ggcctggggc	cggagtgaag	gcggccccat	gaggcaccag	2460
atactcccag	gaaacacaga	ctctgcagag	atccggggtc	tcgaagggtg	agtcagctac	2520

tcagtgcgag	tgactgcact	tgtcggggac	cgcgagggca	cacctgtctc	cattgttgtc	2580
actacgccgc	ctgaggctcc	gccagccctg	gggacgcttc	acgtgggtgca	gcgcggggag	2640
cactcgtga	ggctgcgtg	ggagccgggtg	cccagagcgc	agggttctc	tctgcactgg	2700
caacctgagg	gtggccagga	acagtcccgg	gtcctggggc	ccgagctcag	cagctatcac	2760
ctggacgggc	tggagccagc	gacacagtac	cgcgtgaggc	tgagtgtcct	agggccagct	2820
ggagaagggc	cctctgcaga	ggtgactgcg	cgcactgagt	cacctcgtgt	tccaagcatt	2880
gaactacgtg	tgggtggacac	ctcgatcgac	tcggtgactt	tggcctggac	tccagtgtcc	2940
agggcaccca	gctacatcct	atcctggcgg	ccactcagag	gccctggcca	ggaagtgcct	3000
gggtccccgc	agacacttcc	agggatctca	agctcccagc	gggtgacagg	gctagagcct	3060
ggcgtctctt	acatcttctc	cctgacgcct	gtcctggatg	gtgtgcgggg	tcctgaggca	3120
tctgtcacac	agacgccagt	gtgccccgt	ggcctggcgg	atgtgggtgtt	cctaccacat	3180
gccactcaag	acaatgctca	ccgtgcggag	gctacgagga	gggtcctgga	gcgtctggtg	3240
ttggcacttg	ggcctcttgg	gccacaggca	gttcagggtt	gcctgctgtc	ttacagtcac	3300
cggccctccc	cactgttccc	actgaatggc	tcccatgacc	ttggcattat	cttgcaaagg	3360
atccgtgaca	tgccctacat	ggacccaagt	gggaacaacc	tgggcacagc	cgtggtcaca	3420
gctcacagat	acatgttggc	accagatgct	cctgggcgcc	gccagcacgt	accaggggtg	3480
atggttctgc	tagtggatga	acccttgaga	ggtgacatat	tcagccccat	ccgtgaggcc	3540
caggcttctg	ggcttaatat	ggtgatgttg	ggaatggctg	gagcggaccc	agagcagctg	3600
cgctgccttg	cgccgggtat	ggactctgtc	cagaccttct	tcgccgtgga	tgatgggcca	3660
agcctggacc	aggcagtcag	tggcttgccc	acagccctgt	gtcaggcatc	cttcactact	3720
cagccccggc	cagagccctg	cccagtgtat	tgtccaaagg	gccagaaggg	ggaacctgga	3780
gagatggggc	tgagaggaca	agttgggcct	cctggcgacc	ctggcctccc	gggcaggacc	3840
ggtgtccccg	gccccagggg	gccccctgga	agtgccactg	ccaagggcga	gaggggcttc	3900
cctggagcag	atgggcgtcc	aggcagccct	ggccgcgccg	ggaatcctgg	gacccttggga	3960
gccccctggc	taaaagggtc	tccagggttg	cctggccctc	gtggggaccc	gggagagcga	4020
ggacctcgag	gccccaaagg	ggagccgggg	gctcccggac	aagtcacgcg	agggtgaagga	4080
cctgggcctt	ctgggcggaa	aggggaccct	ggaccatcgg	gcccccttgg	acctcgtgga	4140
ccactggggg	accagggacc	ccgtggcccc	ccagggcctt	ctggaacagc	catgaagggt	4200
gacaaaggcg	atcgtgggga	gcggggctcc	cctggaccag	gtgaagggtg	cattgtctct	4260
ggggagcctg	ggctgccggg	tcttcccggg	agccctggac	cccaaggccc	cgttggcccc	4320
cctggaaaga	aaggagaaaa	aggtgactct	gaggatggag	ctccaggcct	cccaggacaa	4380
cctgggtctc	cgggtgagca	gggcccacgg	ggacctcctg	gagctatttg	ccccaaagg	4440
gaccggggct	ttccaggggc	cctgggtgag	gctggagaga	agggcgaacg	tggaccccc	4500
ggcccagcgg	gatcccgggg	gctgccaggg	gttgctggac	gtcctggagc	caagggtcct	4560
gaagggccac	caggaccac	tggccgcaa	ggagagaagg	gggagcctgg	tcgccctggg	4620
gaccctgcag	tgggtgggac	tgctgttgct	ggacccaaag	gagaaaagg	agatgtgggg	4680
cccgtggggc	ccagaggagc	taccggagtc	caaggggaac	ggggcccacc	cggcttgggt	4740
cttcctggag	accctggccc	caaggagagc	cctggagacc	ggggtcccat	tggccttact	4800
ggcagagcag	gacccccagg	tgactcaggg	cctcctggag	agaagggaga	ccctgggcgg	4860
cctggccccc	caggacctgt	tggcccccga	ggacgagatg	gtgaagtgtg	agagaaaagg	4920
gacgagggtc	ctccgggtga	cccgggtttg	cctggaaaag	caggcgagcg	tggccttcgg	4980
ggggcacctg	gagttcgggg	gcctgtgggt	gaaaaggag	accagggaga	tcctggagag	5040
gatggacgaa	atggcagccc	tggatcatct	ggacccaagg	gtgaccgtgg	ggagccgggt	5100
ccccaggac	ccccgggacg	gctggtagac	acaggacctg	gagccagaga	gaaggagag	5160
cctggggacc	gcggacaaga	gggtcctcga	gggcccagg	gtgatcctgg	cctccctgga	5220
gccccctggg	aaaggggcat	tgaagggttt	cggggacccc	caggcccaca	gggggaccca	5280
ggtgtccgag	gcccagcagg	agaaaagggt	gaccggggtc	cccctgggct	ggatggccgg	5340
agcggactgg	atgggaaacc	aggagccgct	gggcccctct	ggccgaatgg	tgctgcaggc	5400
aaagctgggg	accaggggag	agacgggcct	ccaggcctcc	gtggagaaca	gggcctccct	5460
ggccccctct	gtccccctgg	attaccggga	aagccaggcg	aggatggcaa	acctggcctg	5520

aatggaaaaa	acgggagaacc	tggggaccct	ggagaagacg	ggaggaaggg	agagaaagga	5580
gattcaggcg	cctctgggag	agaaggctcg	gatggcccca	agggtgagcg	tggagctcct	5640
ggtatccttg	gaccccaggg	gcctccaggc	ctcccagggc	cagtgggccc	tcctggccag	5700
ggttttcctg	gtgtcccagg	aggcacgggc	cccaaggggtg	accgtgggga	gactggatcc	5760
aaaggggagc	agggcctccc	tggagagcgt	ggcctgcgag	gagagcctgg	aagtgtgccg	5820
aatgtggatc	ggttgctgga	aactgctggc	atcaaggcat	ctgccctgcg	ggagatcgtg	5880
gagacctggg	atgagagctc	tggtagcttc	ctgcctgtgc	ccgaacggcg	tcgaggcccc	5940
aagggggact	caggcgaaca	gggcccccca	ggcaaggagg	gccccatcgg	ctttcctgga	6000
gaacgcgggc	tgaagggcga	ccgtggagac	cctggccctc	agggggccacc	tggctctggcc	6060
cttggggaga	ggggccccc	cgggccttcc	ggccttgccg	gggagcctgg	aaagcctggt	6120
attcccgggc	tcccaggcag	ggctgggggt	gtgggagagg	caggaaaggcc	aggagagagg	6180
ggagaacggg	gagagaaagg	agaacgtgga	gaacagggca	gagatggccc	tcctggactc	6240
cctggaaccc	ctgggcccc	cggaccccc	ggccccaagg	tgtctgtgga	tgagccaggt	6300
cctggactct	ctggagaaca	gggaccccc	ggactcaagg	gtgctaaggg	ggagccgggc	6360
agcaatggtg	accaaggctc	caaaggagac	aggggtgtgc	caggcatcaa	aggagaccgg	6420
ggagagcctg	gaccgagggg	tcaggacggc	aaccgggtc	taccaggaga	gcgtggtatg	6480
gctgggcctg	aagggaagcc	gggtctgcag	ggtccaagag	gccccctgg	cccagtgggt	6540
ggtcatggag	accctggacc	acctggtgcc	ccgggtcttg	ctggccctgc	aggaccccaa	6600
ggaccttctg	gcctgaaggg	ggagcctgga	gagacaggac	ctccaggacg	gggcctgact	6660
ggacctactg	gagctgtggg	acttcctgga	ccccccggcc	cttcaggcct	tgtgggtcca	6720
caggggtctc	caggtttgcc	tggacaagtg	ggggagacag	ggaaagccggg	agccccaggt	6780
cgagatggtg	ccagtggaaa	agatggagac	agagggagcc	ctggtgtgcc	agggtcacca	6840
ggtctgcctg	gccctgtcgg	acctaaagga	gaacctggcc	ccacgggggc	ccctggacag	6900
gctgtggtcg	ggctccctgg	agcaaaagga	gagaagggag	cccctggagg	ccttgctgga	6960
gacctggtgg	gtgagccggg	agccaaaggt	gaccgaggac	tgccagggcc	gcgaggcgag	7020
aagggtgaa	ctggccgtgc	aggggagccc	ggagaccctg	gggaagatgg	tcagaaaggg	7080
gctccaggac	ccaaagggtt	caagggtgac	ccaggagtcg	gggtcccggg	ctccccctggg	7140
cctcctggcc	ctccagggtg	gaagggagat	ctgggcctcc	ctggcctgcc	cgggtgctcct	7200
ggtgtgtgtg	ggttcccggg	tcagacaggc	cctcgaggag	agatgggtca	gccaggccct	7260
agtggagagc	ggggtctggc	aggccccca	gggagagaag	gaatcccagg	accctggggg	7320
ccacctggac	caccggggtc	agtgggacca	cctggggcct	ctggactcaa	aggagacaag	7380
ggagaccctg	gagtagggct	gcctgggccc	cgaggcgagc	gtggggagcc	aggcatccgg	7440
ggtgaagatg	gccgccccgg	ccaggaggga	ccccgaggac	tcacggggcc	ccctggcagc	7500
aggggagagc	gtggggagaa	gggtgatgtt	gggagtgcag	gactaaaggg	tgacaagggg	7560
gactcagctg	tgatcctggg	gcctccaggc	ccacgggggtg	ccaaggggga	catgggtgaa	7620
cgagggcctc	ggggccttga	tggtgacaaa	ggacctcggg	gagacaatgg	ggaccctggt	7680
gacaagggca	gcaagggaga	gcctggtgac	aagggtcag	ccgggttgcc	aggactgctg	7740
ggactcctgg	gaccccaggg	tcaacctggt	gcagcaggga	tccctggtga	cccgggatcc	7800
ccaggaaaagg	atggagtgcc	tggtatccga	ggagaaaaag	gagatgttgg	cttcatgggt	7860
ccccggggcc	tcaagggtga	acggggagtg	aagggagcct	gtggccttga	tggagagaag	7920
ggagacaagg	gagaagctgg	tccccaggc	cgccccgggc	tggcaggaca	caaaggagag	7980
atgggggagc	ctggtgtgcc	gggccagtcg	ggggccctg	gcaaggaggg	cctgatcggg	8040
cccaagggtg	accgaggctt	tgacgggcag	ccaggcccca	agggtgacca	gggcgagaaa	8100
ggggagcggg	gaaccccagg	aattgggggc	ttcccaggcc	ccagtggaaa	tgatggctct	8160
gctggtcccc	cagggccacc	tggcagtgtt	ggtcccagag	gccccgaagg	acttcagggc	8220
cagaagggtg	agcgaggctc	ccccggagag	agagtgggtg	gggctcctgg	ggtccctgga	8280
gctcctggcg	agagagggga	gcaggggcgg	ccagggcctg	ccggctcctg	aggcgagaag	8340
ggagaagctg	cactgacgga	ggatgacatc	cggggccttg	tgcgccaaga	gatgagtcag	8400
cactgtgcct	gccagggcca	gttcatcgca	tctggatcac	gacccctccc	tagttatgct	8460
gcagacactg	ccggctccca	gctccatgct	gtgcctgtgc	tccgcgtctc	tcatgcagag	8520

gaggaagagc	gggtaccccc	tgaggatgat	gagtactctg	aatactccga	gtattctgtg	8580
gaggagtacc	aggaccctga	agctccttgg	gatagtgatg	acccctgttc	cctgccactg	8640
gatgagggct	cctgcactgc	ctacaccctg	cgctgggtacc	atcgggctgt	gacaggcagc	8700
acagaggcct	gtcacccctt	tgtctatgg	ggctgtggag	ggaatgccaa	ccgttttggg	8760
acccgtgagg	cctgcgagcg	ccgctgcccc	ccccgggtgg	tccagagcca	ggggacaggt	8820
actgcccagg	acggaagcgg	agctactaac	ttcagcctgc	tgaagcaggc	tggagacgtg	8880
gaggagaacc	ctggacctac	ctcctcgggg	cctggacccc	ggttcctgct	gctgctgccg	8940
ctgctgctgc	cccctgcggc	ctcagcctcc	gaccggcccc	ggggccgaga	cccgggtcaac	9000
ccagagaagc	tgctggtgat	cactgtggcc	acagctgaaa	ccgaggggta	cctgcgtttc	9060
ctgcgctctg	cggagtctt	caactacact	gtgcggaccc	tgggcctggg	agaggagtgg	9120
cgaggggggtg	atgtggctcg	aacagttggt	ggaggacaga	aggtccgggtg	gttaaagaag	9180
gaaatggaga	aatacgctga	ccgggaggat	atgatcatca	tgtttgtgga	tagctacgac	9240
gtgattctgg	ccggcagccc	cacagagctg	ctgaagaagt	tcgtccagag	tggcagccgc	9300
ctgctcttct	ctgcagagag	cttctgctgg	cccagtgagg	ggctggcggg	gcagtaccct	9360
gaggtgggca	cggggaagcg	cttctcaat	tctggtggat	tcacgggtt	tgccaccacc	9420
atccacaaaa	tcgtgcgcca	gtggaagtac	aaggatgatg	acgacgacca	gctgttctac	9480
acacggctct	acctggaccc	aggactgagg	gagaaaactca	gccttaatat	ggatcataag	9540
tctcggatct	ttcagaacct	caacggggct	ttagatgaag	tggttttaaa	gtttgatcgg	9600
aaccgtgtgc	gtatccggaa	cgtggcctac	gacacgctcc	ccattgtggt	ccatggaaac	9660
gggtccacta	agctgcagct	caactacctg	ggaaactacg	tcccaaatgg	ctggactcct	9720
gagggaggct	gtggcttctg	caaccaggac	cggaggacac	tccggggggg	gcagcctccc	9780
ccccgggtgt	ttctggccgt	gtttgtggaa	cagcctactc	cgtttctgcc	ccgcttctctg	9840
cagcggctgc	tactcctgga	ctatcccccc	gacagggtca	cccttttctt	gcacaacaac	9900
gaggtcttcc	atgaacccca	catcgctgac	tcctggccgc	agctccagga	ccacttctca	9960
gctgtgaagc	tcgtggggcc	ggaggaggct	ctgagcccag	gcgaggccag	ggacatggcc	10020
atggacctgt	gtcggcagga	ccccgagtgt	gagttctact	tcagcctgga	cgccgacgct	10080
gtcctcacca	acctgcagac	cctgcgtatc	ctcattgagg	agaacaggaa	ggtgatcgcc	10140
cccatgctgt	cccgccacgg	caagctgtgg	tccaacttct	ggggcgccct	gagccccgat	10200
gagtactacg	ccgctccga	ggactacgtg	gagctgggtg	agcggaaagc	agtgggtgtg	10260
tggaatgtac	catacatctc	ccaggcctat	gtgatccggg	gtgataccct	gcggatggag	10320
ctgccccaga	gggatgtgtt	ctcgggcagt	gacacagacc	cggacatggc	cttctgtaag	10380
agctttcgag	acaagggcat	cttctcccat	ctgagcaatc	agcatgaatt	tggccggctc	10440
ctggccactt	ccagatacga	cacggagcac	ctgcaccccg	acctctggca	gatcttcgac	10500
aaccccgtcg	actggaagga	gcagtacatc	cacgagaact	acagccgggc	cctggaaggg	10560
gaaggaatcg	tggagcagcc	atgcccggac	gtgtactggt	tcccactgct	gtcagaacaa	10620
atgtgtgatg	agctggtggc	agagatggag	cactacggcc	agtggtcagg	cggccggcat	10680
gaggattcaa	ggctggctgg	aggctacgag	aatgtgccca	ccgtggacat	ccacatgaag	10740
caggtgggggt	acgaggacca	gtggctgcag	ctgctgcgga	cgtatgtggg	ccccatgacc	10800
gagagcctgt	ttcccgggta	ccacaccaag	gcgcgggcgg	tgatgaactt	tgtggttcgc	10860
taccggccag	acgagcagcc	gtctctgcgg	ccacaccacg	actcatccac	cttcaccctc	10920
aacgttgccc	tcaaccacaa	gggcctggac	tatgagggag	gtggctgccg	cttcctgcgc	10980
tacgactgtg	tgatctcctc	cccgaggaag	ggctgggcac	tcctgcaccc	cggccgcctc	11040
accactacc	acgaggggct	gccaacgacc	tggggcacac	gctacatcat	ggtgtccttt	11100
gtcgaccct	ga					11112

<210> 18

<211> 3703

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 18

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

Gln 370	Gln 370	Gln 370	Glu 370	Leu 370	Gly 375	Pro 375	Gly 375	Gln 375	Gly 375	Ser 380	Val 380	Leu 380	Leu 380	Arg 380	Asp 380
Leu 385	Glu 385	Pro 385	Gly 385	Thr 385	Asp 390	Tyr 390	Glu 390	Val 390	Thr 390	Val 395	Ser 395	Thr 395	Leu 395	Phe 395	Gly 400
Arg 405	Ser 405	Val 405	Gly 405	Pro 405	Ala 405	Thr 410	Ser 410	Leu 410	Met 410	Ala 410	Arg 410	Thr 410	Asp 415	Ala 415	Ser 415
Val 420	Glu 420	Gln 420	Thr 420	Leu 420	Arg 420	Pro 425	Val 425	Ile 425	Leu 425	Gly 425	Pro 430	Thr 430	Ser 430	Ile 430	Leu 430
Leu 435	Ser 435	Trp 435	Asn 435	Leu 435	Val 440	Pro 440	Glu 440	Ala 440	Arg 440	Gly 445	Tyr 445	Arg 445	Leu 445	Glu 445	Trp 445
Arg 450	Arg 450	Glu 450	Thr 450	Gly 450	Leu 455	Glu 455	Pro 455	Pro 455	Gln 455	Lys 460	Val 460	Val 460	Leu 460	Pro 460	Ser 460
Asp 465	Val 465	Thr 465	Arg 465	Tyr 465	Gln 470	Leu 470	Asp 470	Gly 470	Leu 470	Gln 475	Pro 475	Gly 475	Thr 475	Glu 475	Tyr 480
Arg 485	Leu 485	Thr 485	Leu 485	Tyr 485	Thr 485	Leu 490	Leu 490	Glu 490	Gly 490	His 490	Glu 490	Val 490	Ala 490	Thr 490	Pro 490
Ala 500	Thr 500	Val 500	Val 500	Pro 500	Thr 500	Gly 505	Pro 505	Glu 505	Leu 505	Pro 505	Val 505	Ser 505	Pro 505	Val 505	Thr 505
Asp 515	Leu 515	Gln 515	Ala 515	Thr 515	Glu 515	Leu 520	Pro 520	Gly 520	Gln 520	Arg 520	Val 520	Arg 520	Val 520	Ser 520	Trp 520
Ser 530	Pro 530	Val 530	Pro 530	Gly 530	Ala 530	Thr 535	Gln 535	Tyr 535	Arg 535	Ile 540	Ile 540	Val 540	Arg 540	Ser 540	Thr 540
Gln 545	Gly 545	Val 545	Glu 545	Arg 545	Thr 545	Leu 550	Val 550	Leu 550	Pro 550	Gly 550	Ser 550	Gln 550	Thr 550	Ala 550	Phe 550
Asp 565	Leu 565	Asp 565	Asp 565	Val 565	Gln 565	Ala 570	Gly 570	Leu 570	Ser 570	Tyr 570	Thr 570	Val 570	Arg 570	Val 570	Ser 570
Ala 580	Arg 580	Val 580	Gly 580	Pro 580	Arg 580	Glu 585	Gly 585	Ser 585	Ala 585	Ser 585	Val 585	Leu 585	Thr 585	Val 585	Arg 585
Arg 595	Glu 595	Pro 595	Glu 595	Thr 595	Pro 595	Leu 600	Ala 600	Val 600	Pro 600	Gly 600	Leu 600	Arg 600	Val 600	Val 600	Val 600
Ser 610	Asp 610	Ala 610	Thr 610	Arg 610	Val 610	Arg 615	Val 615	Ala 615	Trp 615	Gly 615	Pro 615	Val 615	Pro 615	Gly 615	Ala 615
Ser 625	Gly 625	Phe 625	Arg 625	Ile 625	Ser 630	Trp 630	Ser 630	Thr 630	Gly 630	Ser 630	Gly 630	Pro 630	Glu 630	Ser 630	Ser 630
Gln 645	Thr 645	Leu 645	Pro 645	Pro 645	Asp 645	Ser 645	Thr 645	Ala 645	Thr 645	Asp 645	Ile 645	Thr 645	Gly 645	Leu 645	Gln 645
Pro 660	Gly 660	Thr 660	Thr 660	Tyr 660	Gln 660	Val 660	Ala 660	Val 660	Ser 660	Val 660	Leu 660	Arg 660	Gly 660	Arg 660	Glu 660
Glu 675	Gly 675	Pro 675	Ala 675	Ala 675	Val 675	Ile 675	Val 675	Ala 675	Arg 675	Thr 675	Asp 675	Pro 675	Leu 675	Gly 675	Pro 675
Val 690	Arg 690	Thr 690	Val 690	His 690	Val 690	Thr 690	Gln 690	Ala 690	Ser 690	Ser 690	Ser 690	Ser 690	Val 690	Thr 690	Ile 690
Thr 705	Trp 705	Thr 705	Arg 705	Val 705	Pro 705	Gly 705	Ala 705	Thr 705	Gly 705	Tyr 705	Arg 705	Val 705	Ser 705	Trp 705	His 705
Ser 720	Ala 720	His 720	Gly 720	Pro 720	Glu 720	Lys 720	Ser 720	Gln 720	Leu 720	Val 720	Ser 720	Gly 720	Glu 720	Ala 720	Thr 720
Val 735	Ala 735	Glu 735	Leu 735	Asp 735	Gly 735	Leu 735	Glu 735	Pro 735	Asp 735	Thr 735	Glu 735	Tyr 735	Thr 735	Val 735	His 735
Val 750	Arg 750	Ala 750	His 750	Val 750	Ala 750	Gly 750</									

Val	Arg	Thr	Ala	Pro	Glu	Pro	Val	Gly	Arg	Val	Ser	Arg	Leu	Gln	Ile
770						775					780				
Leu	Asn	Ala	Ser	Ser	Asp	Val	Leu	Arg	Ile	Thr	Trp	Val	Gly	Val	Thr
785					790					795					800
Gly	Ala	Thr	Ala	Tyr	Arg	Leu	Ala	Trp	Gly	Arg	Ser	Glu	Gly	Gly	Pro
				805					810					815	
Met	Arg	His	Gln	Ile	Leu	Pro	Gly	Asn	Thr	Asp	Ser	Ala	Glu	Ile	Arg
			820					825					830		
Gly	Leu	Glu	Gly	Gly	Val	Ser	Tyr	Ser	Val	Arg	Val	Thr	Ala	Leu	Val
		835					840					845			
Gly	Asp	Arg	Glu	Gly	Thr	Pro	Val	Ser	Ile	Val	Val	Thr	Thr	Pro	Pro
	850					855					860				
Glu	Ala	Pro	Pro	Ala	Leu	Gly	Thr	Leu	His	Val	Val	Gln	Arg	Gly	Glu
865					870					875					880
His	Ser	Leu	Arg	Leu	Arg	Trp	Glu	Pro	Val	Pro	Arg	Ala	Gln	Gly	Phe
				885					890					895	
Leu	Leu	His	Trp	Gln	Pro	Glu	Gly	Gly	Gln	Glu	Gln	Ser	Arg	Val	Leu
			900					905					910		
Gly	Pro	Glu	Leu	Ser	Ser	Tyr	His	Leu	Asp	Gly	Leu	Glu	Pro	Ala	Thr
		915					920						925		
Gln	Tyr	Arg	Val	Arg	Leu	Ser	Val	Leu	Gly	Pro	Ala	Gly	Glu	Gly	Pro
	930					935					940				
Ser	Ala	Glu	Val	Thr	Ala	Arg	Thr	Glu	Ser	Pro	Arg	Val	Pro	Ser	Ile
945					950					955					960
Glu	Leu	Arg	Val	Val	Asp	Thr	Ser	Ile	Asp	Ser	Val	Thr	Leu	Ala	Trp
				965					970					975	
Thr	Pro	Val	Ser	Arg	Ala	Ser	Ser	Tyr	Ile	Leu	Ser	Trp	Arg	Pro	Leu
			980					985					990		
Arg	Gly	Pro	Gly	Gln	Glu	Val	Pro	Gly	Ser	Pro	Gln	Thr	Leu	Pro	Gly
	995						1000					1005			
Ile	Ser	Ser	Ser	Gln	Arg	Val	Thr	Gly	Leu	Glu	Pro	Gly	Val	Ser	Tyr
	1010					1015					1020				
Ile	Phe	Ser	Leu	Thr	Pro	Val	Leu	Asp	Gly	Val	Arg	Gly	Pro	Glu	Ala
1025					1030					1035					1040
Ser	Val	Thr	Gln	Thr	Pro	Val	Cys	Pro	Arg	Gly	Leu	Ala	Asp	Val	Val
				1045					1050					1055	
Phe	Leu	Pro	His	Ala	Thr	Gln	Asp	Asn	Ala	His	Arg	Ala	Glu	Ala	Thr
			1060					1065					1070		
Arg	Arg	Val	Leu	Glu	Arg	Leu	Val	Leu	Ala	Leu	Gly	Pro	Leu	Gly	Pro
		1075					1080					1085			
Gln	Ala	Val	Gln	Val	Gly	Leu	Leu	Ser	Tyr	Ser	His	Arg	Pro	Ser	Pro
	1090					1095					1100				
Leu	Phe	Pro	Leu	Asn	Gly	Ser	His	Asp	Leu	Gly	Ile	Ile	Leu	Gln	Arg
1105					1110					1115					1120
Ile	Arg	Asp	Met	Pro	Tyr	Met	Asp	Pro	Ser	Gly	Asn	Asn	Leu	Gly	Thr
			1125						1130					1135	
Ala	Val	Val	Thr	Ala	His	Arg	Tyr	Met	Leu	Ala	Pro	Asp	Ala	Pro	Gly
			1140					1145					1150		
Arg	Arg	Gln	His	Val	Pro	Gly	Val	Met	Val	Leu	Leu	Val	Asp	Glu	Pro
		1155					1160						1165		

Leu	Arg	Gly	Asp	Ile	Phe	Ser	Pro	Ile	Arg	Glu	Ala	Gln	Ala	Ser	Gly	1170	1175	1180	
Leu	Asn	Val	Val	Met	Leu	Gly	Met	Ala	Gly	Ala	Asp	Pro	Glu	Gln	Leu	1185	1190	1195	1200
Arg	Arg	Leu	Ala	Pro	Gly	Met	Asp	Ser	Val	Gln	Thr	Phe	Phe	Ala	Val	1205	1210	1215	
Asp	Asp	Gly	Pro	Ser	Leu	Asp	Gln	Ala	Val	Ser	Gly	Leu	Ala	Thr	Ala	1220	1225	1230	
Leu	Cys	Gln	Ala	Ser	Phe	Thr	Thr	Gln	Pro	Arg	Pro	Glu	Pro	Cys	Pro	1235	1240	1245	
Val	Tyr	Cys	Pro	Lys	Gly	Gln	Lys	Gly	Glu	Pro	Gly	Glu	Met	Gly	Leu	1250	1255	1260	
Arg	Gly	Gln	Val	Gly	Pro	Pro	Gly	Asp	Pro	Gly	Leu	Pro	Gly	Arg	Thr	1265	1270	1275	1280
Gly	Ala	Pro	Gly	Pro	Gln	Gly	Pro	Pro	Gly	Ser	Ala	Thr	Ala	Lys	Gly	1285	1290	1295	
Glu	Arg	Gly	Phe	Pro	Gly	Ala	Asp	Gly	Arg	Pro	Gly	Ser	Pro	Gly	Arg	1300	1305	1310	
Ala	Gly	Asn	Pro	Gly	Thr	Pro	Gly	Ala	Pro	Gly	Leu	Lys	Gly	Ser	Pro	1315	1320	1325	
Gly	Leu	Pro	Gly	Pro	Arg	Gly	Asp	Pro	Gly	Glu	Arg	Gly	Pro	Arg	Gly	1330	1335	1340	
Pro	Lys	Gly	Glu	Pro	Gly	Ala	Pro	Gly	Gln	Val	Ile	Gly	Gly	Glu	Gly	1345	1350	1355	1360
Pro	Gly	Leu	Pro	Gly	Arg	Lys	Gly	Asp	Pro	Gly	Pro	Ser	Gly	Pro	Pro	1365	1370	1375	
Gly	Pro	Arg	Gly	Pro	Leu	Gly	Asp	Pro	Gly	Pro	Arg	Gly	Pro	Pro	Gly	1380	1385	1390	
Leu	Pro	Gly	Thr	Ala	Met	Lys	Gly	Asp	Lys	Gly	Asp	Arg	Gly	Glu	Arg	1395	1400	1405	
Gly	Pro	Pro	Gly	Pro	Gly	Glu	Gly	Gly	Ile	Ala	Pro	Gly	Glu	Pro	Gly	1410	1415	1420	
Leu	Pro	Gly	Leu	Pro	Gly	Ser	Pro	Gly	Pro	Gln	Gly	Pro	Val	Gly	Pro	1425	1430	1435	1440
Pro	Gly	Lys	Lys	Gly	Glu	Lys	Gly	Asp	Ser	Glu	Asp	Gly	Ala	Pro	Gly	1445	1450	1455	
Leu	Pro	Gly	Gln	Pro	Gly	Ser	Pro	Gly	Glu	Gln	Gly	Pro	Arg	Gly	Pro	1460	1465	1470	
Pro	Gly	Ala	Ile	Gly	Pro	Lys	Gly	Asp	Arg	Gly	Phe	Pro	Gly	Pro	Leu	1475	1480	1485	
Gly	Glu	Ala	Gly	Glu	Lys	Gly	Glu	Arg	Gly	Pro	Pro	Gly	Pro	Ala	Gly	1490	1495	1500	
Ser	Arg	Gly	Leu	Pro	Gly	Val	Ala	Gly	Arg	Pro	Gly	Ala	Lys	Gly	Pro	1505	1510	1515	1520
Glu	Gly	Pro	Pro	Gly	Pro	Thr	Gly	Arg	Gln	Gly	Glu	Lys	Gly	Glu	Pro	1525	1530	1535	
Gly	Arg	Pro	Gly	Asp	Pro	Ala	Val	Val	Gly	Pro	Ala	Val	Ala	Gly	Pro	1540	1545	1550	
Lys	Gly	Glu	Lys	Gly	Asp	Val	Gly	Pro	Ala	Gly	Pro	Arg	Gly	Ala	Thr	1555	1560	1565	

Gly Val Gln Gly Glu Arg Gly Pro Pro Gly Leu Val Leu Pro Gly Asp		
1570	1575	1580
Pro Gly Pro Lys Gly Asp Pro Gly Asp Arg Gly Pro Ile Gly Leu Thr		
1585	1590	1595 1600
Gly Arg Ala Gly Pro Pro Gly Asp Ser Gly Pro Pro Gly Glu Lys Gly		
1605	1610	1615
Asp Pro Gly Arg Pro Gly Pro Pro Gly Pro Val Gly Pro Arg Gly Arg		
1620	1625	1630
Asp Gly Glu Val Gly Glu Lys Gly Asp Glu Gly Pro Pro Gly Asp Pro		
1635	1640	1645
Gly Leu Pro Gly Lys Ala Gly Glu Arg Gly Leu Arg Gly Ala Pro Gly		
1650	1655	1660
Val Arg Gly Pro Val Gly Glu Lys Gly Asp Gln Gly Asp Pro Gly Glu		
1665	1670	1675 1680
Asp Gly Arg Asn Gly Ser Pro Gly Ser Ser Gly Pro Lys Gly Asp Arg		
1685	1690	1695
Gly Glu Pro Gly Pro Pro Gly Pro Pro Gly Arg Leu Val Asp Thr Gly		
1700	1705	1710
Pro Gly Ala Arg Glu Lys Gly Glu Pro Gly Asp Arg Gly Gln Glu Gly		
1715	1720	1725
Pro Arg Gly Pro Lys Gly Asp Pro Gly Leu Pro Gly Ala Pro Gly Glu		
1730	1735	1740
Arg Gly Ile Glu Gly Phe Arg Gly Pro Pro Gly Pro Gln Gly Asp Pro		
1745	1750	1755 1760
Gly Val Arg Gly Pro Ala Gly Glu Lys Gly Asp Arg Gly Pro Pro Gly		
1765	1770	1775
Leu Asp Gly Arg Ser Gly Leu Asp Gly Lys Pro Gly Ala Ala Gly Pro		
1780	1785	1790
Ser Gly Pro Asn Gly Ala Ala Gly Lys Ala Gly Asp Pro Gly Arg Asp		
1795	1800	1805
Gly Leu Pro Gly Leu Arg Gly Glu Gln Gly Leu Pro Gly Pro Ser Gly		
1810	1815	1820
Pro Pro Gly Leu Pro Gly Lys Pro Gly Glu Asp Gly Lys Pro Gly Leu		
1825	1830	1835 1840
Asn Gly Lys Asn Gly Glu Pro Gly Asp Pro Gly Glu Asp Gly Arg Lys		
1845	1850	1855
Gly Glu Lys Gly Asp Ser Gly Ala Ser Gly Arg Glu Gly Arg Asp Gly		
1860	1865	1870
Pro Lys Gly Glu Arg Gly Ala Pro Gly Ile Leu Gly Pro Gln Gly Pro		
1875	1880	1885
Pro Gly Leu Pro Gly Pro Val Gly Pro Pro Gly Gln Gly Phe Pro Gly		
1890	1895	1900
Val Pro Gly Gly Thr Gly Pro Lys Gly Asp Arg Gly Glu Thr Gly Ser		
1905	1910	1915 1920
Lys Gly Glu Gln Gly Leu Pro Gly Glu Arg Gly Leu Arg Gly Glu Pro		
1925	1930	1935
Gly Ser Val Pro Asn Val Asp Arg Leu Leu Glu Thr Ala Gly Ile Lys		
1940	1945	1950
Ala Ser Ala Leu Arg Glu Ile Val Glu Thr Trp Asp Glu Ser Ser Gly		
1955	1960	1965

Ser	Phe	Leu	Pro	Val	Pro	Glu	Arg	Arg	Arg	Gly	Pro	Lys	Gly	Asp	Ser
1970						1975					1980				
Gly	Glu	Gln	Gly	Pro	Pro	Gly	Lys	Glu	Gly	Pro	Ile	Gly	Phe	Pro	Gly
1985					1990					1995					2000
Glu	Arg	Gly	Leu	Lys	Gly	Asp	Arg	Gly	Asp	Pro	Gly	Pro	Gln	Gly	Pro
				2005					2010						2015
Pro	Gly	Leu	Ala	Leu	Gly	Glu	Arg	Gly	Pro	Pro	Gly	Pro	Ser	Gly	Leu
			2020					2025						2030	
Ala	Gly	Glu	Pro	Gly	Lys	Pro	Gly	Ile	Pro	Gly	Leu	Pro	Gly	Arg	Ala
		2035					2040						2045		
Gly	Gly	Val	Gly	Glu	Ala	Gly	Arg	Pro	Gly	Glu	Arg	Gly	Glu	Arg	Gly
		2050				2055					2060				
Glu	Lys	Gly	Glu	Arg	Gly	Glu	Gln	Gly	Arg	Asp	Gly	Pro	Pro	Gly	Leu
2065					2070					2075					2080
Pro	Gly	Thr	Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Pro	Lys	Val	Ser	Val
				2085					2090						2095
Asp	Glu	Pro	Gly	Pro	Gly	Leu	Ser	Gly	Glu	Gln	Gly	Pro	Pro	Gly	Leu
			2100					2105						2110	
Lys	Gly	Ala	Lys	Gly	Glu	Pro	Gly	Ser	Asn	Gly	Asp	Gln	Gly	Pro	Lys
		2115					2120						2125		
Gly	Asp	Arg	Gly	Val	Pro	Gly	Ile	Lys	Gly	Asp	Arg	Gly	Glu	Pro	Gly
		2130				2135					2140				
Pro	Arg	Gly	Gln	Asp	Gly	Asn	Pro	Gly	Leu	Pro	Gly	Glu	Arg	Gly	Met
2145					2150					2155					2160
Ala	Gly	Pro	Glu	Gly	Lys	Pro	Gly	Leu	Gln	Gly	Pro	Arg	Gly	Pro	Pro
				2165					2170						2175
Gly	Pro	Val	Gly	Gly	His	Gly	Asp	Pro	Gly	Pro	Pro	Gly	Ala	Pro	Gly
			2180					2185						2190	
Leu	Ala	Gly	Pro	Ala	Gly	Pro	Gln	Gly	Pro	Ser	Gly	Leu	Lys	Gly	Glu
		2195					2200						2205		
Pro	Gly	Glu	Thr	Gly	Pro	Pro	Gly	Arg	Gly	Leu	Thr	Gly	Pro	Thr	Gly
		2210				2215						2220			
Ala	Val	Gly	Leu	Pro	Gly	Pro	Pro	Gly	Pro	Ser	Gly	Leu	Val	Gly	Pro
2225					2230					2235					2240
Gln	Gly	Ser	Pro	Gly	Leu	Pro	Gly	Gln	Val	Gly	Glu	Thr	Gly	Lys	Pro
				2245					2250						2255
Gly	Ala	Pro	Gly	Arg	Asp	Gly	Ala	Ser	Gly	Lys	Asp	Gly	Asp	Arg	Gly
			2260					2265					2270		
Ser	Pro	Gly	Val	Pro	Gly	Ser	Pro	Gly	Leu	Pro	Gly	Pro	Val	Gly	Pro
		2275					2280						2285		
Lys	Gly	Glu	Pro	Gly	Pro	Thr	Gly	Ala	Pro	Gly	Gln	Ala	Val	Val	Gly
		2290					2295					2300			
Leu	Pro	Gly	Ala	Lys	Gly	Glu	Lys	Gly	Ala	Pro	Gly	Gly	Leu	Ala	Gly
2305					2310					2315					2320
Asp	Leu	Val	Gly	Glu	Pro	Gly	Ala	Lys	Gly	Asp	Arg	Gly	Leu	Pro	Gly
				2325					2330						2335
Pro	Arg	Gly	Glu	Lys	Gly	Glu	Ala	Gly	Arg	Ala	Gly	Glu	Pro	Gly	Asp
			2340					2345						2350	
Pro	Gly	Glu	Asp	Gly	Gln	Lys	Gly	Ala	Pro	Gly	Pro	Lys	Gly	Phe	Lys
		2355					2360						2365		

Gly	Asp	Pro	Gly	Val	Gly	Val	Pro	Gly	Ser	Pro	Gly	Pro	Pro	Gly	Pro	2370	2375	2380
Pro	Gly	Val	Lys	Gly	Asp	Leu	Gly	Leu	Pro	Gly	Leu	Pro	Gly	Ala	Pro	2385	2390	2395
Gly	Val	Val	Gly	Phe	Pro	Gly	Gln	Thr	Gly	Pro	Arg	Gly	Glu	Met	Gly	2405	2410	2415
Gln	Pro	Gly	Pro	Ser	Gly	Glu	Arg	Gly	Leu	Ala	Gly	Pro	Pro	Gly	Arg	2420	2425	2430
Glu	Gly	Ile	Pro	Gly	Pro	Leu	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Ser	Val	2435	2440	2445
Gly	Pro	Pro	Gly	Ala	Ser	Gly	Leu	Lys	Gly	Asp	Lys	Gly	Asp	Pro	Gly	2450	2455	2460
Val	Gly	Leu	Pro	Gly	Pro	Arg	Gly	Glu	Arg	Gly	Glu	Pro	Gly	Ile	Arg	2465	2470	2475
Gly	Glu	Asp	Gly	Arg	Pro	Gly	Gln	Glu	Gly	Pro	Arg	Gly	Leu	Thr	Gly	2485	2490	2495
Pro	Pro	Gly	Ser	Arg	Gly	Glu	Arg	Gly	Glu	Lys	Gly	Asp	Val	Gly	Ser	2500	2505	2510
Ala	Gly	Leu	Lys	Gly	Asp	Lys	Gly	Asp	Ser	Ala	Val	Ile	Leu	Gly	Pro	2515	2520	2525
Pro	Gly	Pro	Arg	Gly	Ala	Lys	Gly	Asp	Met	Gly	Glu	Arg	Gly	Pro	Arg	2530	2535	2540
Gly	Leu	Asp	Gly	Asp	Lys	Gly	Pro	Arg	Gly	Asp	Asn	Gly	Asp	Pro	Gly	2545	2550	2555
Asp	Lys	Gly	Ser	Lys	Gly	Glu	Pro	Gly	Asp	Lys	Gly	Ser	Ala	Gly	Leu	2565	2570	2575
Pro	Gly	Leu	Arg	Gly	Leu	Leu	Gly	Pro	Gln	Gly	Gln	Pro	Gly	Ala	Ala	2580	2585	2590
Gly	Ile	Pro	Gly	Asp	Pro	Gly	Ser	Pro	Gly	Lys	Asp	Gly	Val	Pro	Gly	2595	2600	2605
Ile	Arg	Gly	Glu	Lys	Gly	Asp	Val	Gly	Phe	Met	Gly	Pro	Arg	Gly	Leu	2610	2615	2620
Lys	Gly	Glu	Arg	Gly	Val	Lys	Gly	Ala	Cys	Gly	Leu	Asp	Gly	Glu	Lys	2625	2630	2635
Gly	Asp	Lys	Gly	Glu	Ala	Gly	Pro	Pro	Gly	Arg	Pro	Gly	Leu	Ala	Gly	2645	2650	2655
His	Lys	Gly	Glu	Met	Gly	Glu	Pro	Gly	Val	Pro	Gly	Gln	Ser	Gly	Ala	2660	2665	2670
Pro	Gly	Lys	Glu	Gly	Leu	Ile	Gly	Pro	Lys	Gly	Asp	Arg	Gly	Phe	Asp	2675	2680	2685
Gly	Gln	Pro	Gly	Pro	Lys	Gly	Asp	Gln	Gly	Glu	Lys	Gly	Glu	Arg	Gly	2690	2695	2700
Thr	Pro	Gly	Ile	Gly	Gly	Phe	Pro	Gly	Pro	Ser	Gly	Asn	Asp	Gly	Ser	2705	2710	2715
Ala	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Ser	Val	Gly	Pro	Arg	Gly	Pro	Glu	2725	2730	2735
Gly	Leu	Gln	Gly	Gln	Lys	Gly	Glu	Arg	Gly	Pro	Pro	Gly	Glu	Arg	Val	2740	2745	2750
Val	Gly	Ala	Pro	Gly	Val	Pro	Gly	Ala	Pro	Gly	Glu	Arg	Gly	Glu	Gln	2755	2760	2765

Gly	Arg	Pro	Gly	Pro	Ala	Gly	Pro	Arg	Gly	Glu	Lys	Gly	Glu	Ala	Ala		
2770						2775					2780						
Leu	Thr	Glu	Asp	Asp	Ile	Arg	Gly	Phe	Val	Arg	Gln	Glu	Met	Ser	Gln		
2785					2790					2795					2800		
His	Cys	Ala	Cys	Gln	Gly	Gln	Phe	Ile	Ala	Ser	Gly	Ser	Arg	Pro	Leu		
				2805					2810						2815		
Pro	Ser	Tyr	Ala	Ala	Asp	Thr	Ala	Gly	Ser	Gln	Leu	His	Ala	Val	Pro		
			2820					2825					2830				
Val	Leu	Arg	Val	Ser	His	Ala	Glu	Glu	Glu	Glu	Arg	Val	Pro	Pro	Glu		
		2835				2840						2845					
Asp	Asp	Glu	Tyr	Ser	Glu	Tyr	Ser	Glu	Tyr	Ser	Val	Glu	Glu	Tyr	Gln		
		2850				2855					2860						
Asp	Pro	Glu	Ala	Pro	Trp	Asp	Ser	Asp	Asp	Pro	Cys	Ser	Leu	Pro	Leu		
2865					2870					2875					2880		
Asp	Glu	Gly	Ser	Cys	Thr	Ala	Tyr	Thr	Leu	Arg	Trp	Tyr	His	Arg	Ala		
				2885					2890						2895		
Val	Thr	Gly	Ser	Thr	Glu	Ala	Cys	His	Pro	Phe	Val	Tyr	Gly	Gly	Cys		
		2900						2905					2910				
Gly	Gly	Asn	Ala	Asn	Arg	Phe	Gly	Thr	Arg	Glu	Ala	Cys	Glu	Arg	Arg		
		2915					2920						2925				
Cys	Pro	Pro	Arg	Val	Val	Gln	Ser	Gln	Gly	Thr	Gly	Thr	Ala	Gln	Asp		
		2930				2935						2940					
Gly	Ser	Gly	Ala	Thr	Asn	Phe	Ser	Leu	Leu	Lys	Gln	Ala	Gly	Asp	Val		
2945					2950					2955					2960		
Glu	Glu	Asn	Pro	Gly	Pro	Thr	Ser	Ser	Gly	Pro	Gly	Pro	Arg	Phe	Leu		
				2965					2970						2975		
Leu	Leu	Leu	Pro	Leu	Leu	Leu	Pro	Pro	Ala	Ala	Ser	Ala	Ser	Asp	Arg		
			2980					2985						2990			
Pro	Arg	Gly	Arg	Asp	Pro	Val	Asn	Pro	Glu	Lys	Leu	Leu	Val	Ile	Thr		
		2995					3000						3005				
Val	Ala	Thr	Ala	Glu	Thr	Glu	Gly	Tyr	Leu	Arg	Phe	Leu	Arg	Ser	Ala		
		3010				3015					3020						
Glu	Phe	Phe	Asn	Tyr	Thr	Val	Arg	Thr	Leu	Gly	Leu	Gly	Glu	Glu	Trp		
3025					3030					3035					3040		
Arg	Gly	Gly	Asp	Val	Ala	Arg	Thr	Val	Gly	Gly	Gly	Gln	Lys	Val	Arg		
				3045					3050						3055		
Trp	Leu	Lys	Lys	Glu	Met	Glu	Lys	Tyr	Ala	Asp	Arg	Glu	Asp	Met	Ile		
			3060					3065					3070				
Ile	Met	Phe	Val	Asp	Ser	Tyr	Asp	Val	Ile	Leu	Ala	Gly	Ser	Pro	Thr		
		3075					3080					3085					
Glu	Leu	Leu	Lys	Lys	Phe	Val	Gln	Ser	Gly	Ser	Arg	Leu	Leu	Phe	Ser		
		3090				3095					3100						
Ala	Glu	Ser	Phe	Cys	Trp	Pro	Glu	Trp	Gly	Leu	Ala	Glu	Gln	Tyr	Pro		
3105					3110					3115					3120		
Glu	Val	Gly	Thr	Gly	Lys	Arg	Phe	Leu	Asn	Ser	Gly	Gly	Phe	Ile	Gly		
				3125					3130						3135		
Phe	Ala	Thr	Thr	Ile	His	Gln	Ile	Val	Arg	Gln	Trp	Lys	Tyr	Lys	Asp		
			3140					3145					3150				
Asp	Asp	Asp	Asp	Gln	Leu	Phe	Tyr	Thr	Arg	Leu	Tyr	Leu	Asp	Pro	Gly		
		3155					3160					3165					

Leu	Arg	Glu	Lys	Leu	Ser	Leu	Asn	Leu	Asp	His	Lys	Ser	Arg	Ile	Phe
3170						3175					3180				
Gln	Asn	Leu	Asn	Gly	Ala	Leu	Asp	Glu	Val	Val	Leu	Lys	Phe	Asp	Arg
3185				3190				3195						3200	
Asn	Arg	Val	Arg	Ile	Arg	Asn	Val	Ala	Tyr	Asp	Thr	Leu	Pro	Ile	Val
			3205					3210						3215	
Val	His	Gly	Asn	Gly	Pro	Thr	Lys	Leu	Gln	Leu	Asn	Tyr	Leu	Gly	Asn
		3220					3225					3230			
Tyr	Val	Pro	Asn	Gly	Trp	Thr	Pro	Glu	Gly	Gly	Cys	Gly	Phe	Cys	Asn
	3235					3240					3245				
Gln	Asp	Arg	Arg	Thr	Leu	Pro	Gly	Gly	Gln	Pro	Pro	Pro	Arg	Val	Phe
3250					3255					3260					
Leu	Ala	Val	Phe	Val	Glu	Gln	Pro	Thr	Pro	Phe	Leu	Pro	Arg	Phe	Leu
3265				3270				3275						3280	
Gln	Arg	Leu	Leu	Leu	Leu	Asp	Tyr	Pro	Pro	Asp	Arg	Val	Thr	Leu	Phe
			3285					3290						3295	
Leu	His	Asn	Asn	Glu	Val	Phe	His	Glu	Pro	His	Ile	Ala	Asp	Ser	Trp
		3300					3305				3310				
Pro	Gln	Leu	Gln	Asp	His	Phe	Ser	Ala	Val	Lys	Leu	Val	Gly	Pro	Glu
	3315					3320					3325				
Glu	Ala	Leu	Ser	Pro	Gly	Glu	Ala	Arg	Asp	Met	Ala	Met	Asp	Leu	Cys
3330				3335						3340					
Arg	Gln	Asp	Pro	Glu	Cys	Glu	Phe	Tyr	Phe	Ser	Leu	Asp	Ala	Asp	Ala
3345				3350				3355						3360	
Val	Leu	Thr	Asn	Leu	Gln	Thr	Leu	Arg	Ile	Leu	Ile	Glu	Glu	Asn	Arg
			3365				3370							3375	
Lys	Val	Ile	Ala	Pro	Met	Leu	Ser	Arg	His	Gly	Lys	Leu	Trp	Ser	Asn
	3380					3385					3390				
Phe	Trp	Gly	Ala	Leu	Ser	Pro	Asp	Glu	Tyr	Tyr	Ala	Arg	Ser	Glu	Asp
	3395					3400					3405				
Tyr	Val	Glu	Leu	Val	Gln	Arg	Lys	Arg	Val	Gly	Val	Trp	Asn	Val	Pro
3410				3415						3420					
Tyr	Ile	Ser	Gln	Ala	Tyr	Val	Ile	Arg	Gly	Asp	Thr	Leu	Arg	Met	Glu
3425				3430				3435						3440	
Leu	Pro	Gln	Arg	Asp	Val	Phe	Ser	Gly	Ser	Asp	Thr	Asp	Pro	Asp	Met
			3445					3450						3455	
Ala	Phe	Cys	Lys	Ser	Phe	Arg	Asp	Lys	Gly	Ile	Phe	Leu	His	Leu	Ser
		3460					3465					3470			
Asn	Gln	His	Glu	Phe	Gly	Arg	Leu	Leu	Ala	Thr	Ser	Arg	Tyr	Asp	Thr
	3475					3480					3485				
Glu	His	Leu	His	Pro	Asp	Leu	Trp	Gln	Ile	Phe	Asp	Asn	Pro	Val	Asp
3490				3495						3500					
Trp	Lys	Glu	Gln	Tyr	Ile	His	Glu	Asn	Tyr	Ser	Arg	Ala	Leu	Glu	Gly
3505				3510				3515						3520	
Glu	Gly	Ile	Val	Glu	Gln	Pro	Cys	Pro	Asp	Val	Tyr	Trp	Phe	Pro	Leu
			3525					3530						3535	
Leu	Ser	Glu	Gln	Met	Cys	Asp	Glu	Leu	Val	Ala	Glu	Met	Glu	His	Tyr
		3540					3545					3550			
Gly	Gln	Trp	Ser	Gly	Gly	Arg	His	Glu	Asp	Ser	Arg	Leu	Ala	Gly	Gly
	3555					3560						3565			

Tyr	Glu	Asn	Val	Pro	Thr	Val	Asp	Ile	His	Met	Lys	Gln	Val	Gly	Tyr
3570						3575					3580				
Glu	Asp	Gln	Trp	Leu	Gln	Leu	Leu	Arg	Thr	Tyr	Val	Gly	Pro	Met	Thr
3585					3590					3595				3600	
Glu	Ser	Leu	Phe	Pro	Gly	Tyr	His	Thr	Lys	Ala	Arg	Ala	Val	Met	Asn
				3605					3610					3615	
Phe	Val	Val	Arg	Tyr	Arg	Pro	Asp	Glu	Gln	Pro	Ser	Leu	Arg	Pro	His
			3620					3625					3630		
His	Asp	Ser	Ser	Thr	Phe	Thr	Leu	Asn	Val	Ala	Leu	Asn	His	Lys	Gly
	3635					3640						3645			
Leu	Asp	Tyr	Glu	Gly	Gly	Gly	Cys	Arg	Phe	Leu	Arg	Tyr	Asp	Cys	Val
	3650				3655						3660				
Ile	Ser	Ser	Pro	Arg	Lys	Gly	Trp	Ala	Leu	Leu	His	Pro	Gly	Arg	Leu
3665					3670				3675					3680	
Thr	His	Tyr	His	Glu	Gly	Leu	Pro	Thr	Thr	Trp	Gly	Thr	Arg	Tyr	Ile
			3685					3690						3695	
Met	Val	Ser	Phe	Val	Asp	Pro									
			3700												

<210> 19

<211> 11112

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 19

atgacctcct	cggggccttg	accccggttc	ctgctgctgc	tgccgctgct	gctgccccct	60
gcggcctcag	cctccgaccg	gccccggggc	cgagaccg	tcaaccaga	gaagctgctg	120
gtgatcactg	tggccacagc	tgaaccgag	gggtacctgc	gtttcctg	ctctgcggag	180
ttcttcaact	acactgtg	gacctgggc	ctgggagagg	agtggcgagg	gggtgatgtg	240
gctcgaacag	ttggtggagg	acagaagg	cgggtggtaa	agaaggaaat	ggagaaatac	300
gctgaccggg	aggatatgat	catcatgttt	gtggatagct	acgacgtgat	tctggccggc	360
agccccacag	agctgctgaa	gaagtgcgtc	cagagtggca	gccgcctgct	cttctctgca	420
gagagcttct	gctggcccga	gtgggggctg	gcggagcagt	accctgaggt	gggcacgggg	480
aagcgcttcc	tcaattctgg	tggattcatc	ggttttgcca	ccaccatcca	ccaaatcgtg	540
cgccagtggg	agtacaagga	tgatgacgac	gaccagctgt	tctacacacg	gctctacctg	600
gacccaggac	tgaggggagaa	actcagcctt	aatctggatc	ataagtctcg	gatctttcag	660
aacctcaacg	gggctttaga	tgaagtgggt	ttaaagtgtg	atcggaaccg	tgtgctgctg	720
cggaacgtgg	cctacgacac	gctccccatt	gtggtccatg	gaaacgggtc	cactaagctg	780
cagctcaact	acctgggaaa	ctacgtcccc	aatggctgga	ctcctgaggg	aggctgtggc	840
ttctgcaacc	aggaccggag	gacactcccc	ggggggcagc	ctcccccccg	ggtgtttctg	900
gccgtgtttg	tggaaacagcc	tactccgttt	ctgccccgct	tcctgcagcg	gctgctactc	960
ctggactatc	cccccgacag	ggtcaccctt	ttcctgcaca	acaacgaggt	cttccatgaa	1020
ccccacatcg	ctgactcctg	gccgcagctc	caggaccact	tctcagctgt	gaagctcgtg	1080
gggcccggagg	aggctctgag	cccaggcgag	gccaggggaca	tggccatgga	cctgtgtcgg	1140
caggacccccg	agtgtgagtt	ctacttcagc	ctggacgccg	acgctgtcct	caccaacctg	1200
cagaccctgc	gtatcctcat	tgaggagaac	aggaagggtga	tcgcccccat	gctgtccccg	1260

cacggcaagc	tgtggtccaa	cttctggggc	gccctgagcc	ccgatgagta	ctacgcccgc	1320
tccgaggact	acgtggagct	ggtgcagcgg	aagcgagtgg	gtgtgtggaa	tgtaccatac	1380
atctcccagg	cctatgtgat	ccgggggtgat	accctgcgga	tggagctgcc	ccagagggat	1440
gtgttctcgg	gcagtgcac	agacccggac	atggccttct	gtaagagctt	tcgagacaag	1500
ggcatcttcc	tccatctgag	caatcagcat	gaatttggcc	ggctcctggc	cacttccaga	1560
tacgacacgg	agcacctgca	ccccgacctc	tggcagatct	tcgacaaccc	cgtcgactgg	1620
aaggagcagt	acatccacga	gaactacagc	cgggccctgg	aaggggaagg	aatcgtggag	1680
cagccatgcc	cggacgtgta	ctggttccca	ctgctgtcag	aacaaatgtg	tgatgagctg	1740
gtggcagaga	tggagcacta	cggccagtgg	tcaggcggcc	ggcatgagga	ttcaaggctg	1800
gctggaggct	acgagaatgt	gcccaccgtg	gacatccaca	tgaagcaggt	ggggtacgag	1860
gaccagtggc	tgcagctgct	gcggacgtat	gtgggccccca	tgaccgagag	cctgtttccc	1920
ggttaccaca	ccaaggcgcg	ggcgggtgatg	aactttgtgg	ttcgctaccg	gccagacgag	1980
cagccgtctc	tgcggccaca	ccacgactca	tccaccttca	ccctcaacgt	tgccctcaac	2040
cacaagggcc	tggactatga	gggaggtggc	tgccgcttcc	tgcgctacga	ctgtgtgatc	2100
tcctccccga	ggaagggctg	ggcactcctg	caccccggcc	gcctcaccca	ctaccacgag	2160
gggctgccaa	cgacctgggg	cacacgctac	atcatggtgt	cctttgtcga	ccccggaagc	2220
ggagctacta	acttcagcct	gctgaagcag	gctggagacg	tggaggagaa	ccctggacct	2280
acgctgcggc	ttctgggtgg	cgcgctctgc	gccgggatcc	tggcagaggc	gccccgagtg	2340
cgagcccagc	acagggagag	agtgcacctgc	acgcgccttt	acgccgctga	cattgtgttc	2400
ttactggatg	gctcctcatc	cattggccgc	agcaatttcc	gcgagggtccg	cagctttctc	2460
gaagggctgg	tgctgccttt	ctctggagca	gccagtgcac	agggtgtgcg	ctttgccaca	2520
gtgcagtaca	gcgatgaccc	acggacagag	ttcggcctgg	atgcacttgg	ctctgggggt	2580
gatgtgatcc	gcgccatccg	tgagcttagc	tacaaggggg	gcaaacactcg	cacaggggct	2640
gcaattctcc	atgtggctga	ccatgtcttc	ctgccccagc	tggcccgacc	tggtgtcccc	2700
aaggctctgca	tcctgatcac	agacgggaag	tcccaggacc	tggtggacac	agctgccccaa	2760
aggctgaagg	ggcaggggggt	caagctatatt	gctgtgggga	tcaagaatgc	tgaccctgag	2820
gagctgaagc	gagttgccctc	acagcccacc	agtgacttct	tcttcttcgt	caatgacttc	2880
agcatcttga	ggacactact	gccccctggt	tcccgagag	tgtgcacgac	tgctggtggc	2940
gtgcctgtga	cccgaacctcc	ggatgactcg	acctctgtct	cacgagacct	ggtgctgtct	3000
gagccaagca	gccaatcctt	gagagtacag	tggacagcgg	ccagtggccc	tgtgactggc	3060
tacaaggctc	agtacactcc	tctgacgggg	ctgggacagc	cactgccgag	tgagcggcag	3120
gaggtgaacg	tcccagctgg	tgagaccagt	gtgcggctgc	ggggtctccg	gccactgacc	3180
gagtaccaag	tgacttgtat	tgccctctac	gccaacagca	tcggggaggc	tgtgagcggg	3240
acagctcgga	ccactgccct	agaagggccg	gaactgacca	tccagaatac	cacagcccac	3300
agcctcctgg	tggcctggcg	gagtgtgcca	ggtgccactg	gctaccgtgt	gacatggcgg	3360
gtcctcagt	gtgggcccac	acagcagcag	gagctgggccc	ctgggcaggg	ttcagtgttg	3420
ctgcgtgact	tggagcctgg	cacggactat	gaggtgaccg	tgagcaccct	atttggccgc	3480
agtgtggggc	ccgccacttc	cctgatggct	cgactgacg	cttctgttga	gcagaccctg	3540
cgccccgtca	tcctggggccc	cacatccatc	ctcctttcct	ggaacttgggt	gcctgaggcc	3600
cgtggctacc	ggttggaatg	gcggcggtgag	actggcttgg	agccaccgca	gaagggtggt	3660
ctgccctctg	atgtgaccgg	ctaccagttg	gatgggctgc	agccgggcac	tgagtaccgc	3720
ctcacactct	acactctgct	ggagggccac	gaggtggcca	cccctgcaac	cgtggttccc	3780
actggaccag	agctgcctgt	gagccctgta	acagacctgc	aagccaccga	gctgcccggg	3840
cagcgggtgc	gagtgtcctg	gagcccagtc	cctgggtgcca	cccagtaccg	catcattgtg	3900
cgcagcacc	aggggggtga	gcggaccctg	gtgcttcctg	ggagtcagac	agcattcgac	3960
ttggatgacg	ttcaggctgg	gcttagctac	actgtgcggg	tgtctgctcg	agtgggtccc	4020
cgtgagggca	gtgccagtgt	cctcactgtc	cgccgggagc	cggaaactcc	acttgctgtt	4080
ccagggctgc	gggttgttgt	gtcagatgca	acgcgagtga	gggtggcctg	gggacccgtc	4140
cctggagcca	gtggatttcg	gattagctgg	agcacaggca	gtgggtccga	gtccagccag	4200
acactgcccc	cagactctac	tgccacagac	atcacagggc	tgacgcctgg	aaccacctac	4260

cagggtggctg	tgtcgggtact	gcgaggcaga	gaggagggcc	ctgctgcagt	catcgtggct	4320
cgaacggacc	cactggggccc	agtgaggacg	gtccatgtga	ctcaggccag	cagctcatct	4380
gtcaccatta	cctggaccag	ggttcctggc	gccacaggat	acagggtttc	ctggcactca	4440
gcccacggcc	cagagaaaatc	ccagtttggtt	tctggggagg	ccacgggtggc	tgagctggat	4500
ggactggagc	cagatactga	gtatacgggtg	catgtgaggg	cccatgtggc	tggcgtggat	4560
ggggccccctg	cctctgtggt	tgtgaggact	gccccctgagc	ctgtgggtcg	tgtgtcgagg	4620
ctgcagatcc	tcaatgcttc	cagcgacgtt	ctacggatca	cctgggtagg	ggtcactgga	4680
gccacagctt	acagactggc	ctggggccgg	agtgaaggcg	gccccatgag	gcaccagata	4740
ctcccaggaa	acacagactc	tgcagagatc	cggggctctcg	aagggtggagt	cagctactca	4800
gtgcgagtga	ctgcacttgt	cggggaccgc	gagggcacac	ctgtctccat	tgttgtcact	4860
acgccgcctg	aggctccgcc	agccctgggg	acgcttcacg	tgggtgcagcg	cggggagcac	4920
tcgctgaggc	tgcgctggga	gccggtgccc	agagcgcagg	gcttccttct	gcactggcaa	4980
cctgagggtg	gccaggaaca	gtcccgggtc	ctggggcccg	agctcagcag	ctatcacctg	5040
gacgggctgg	agccagcgac	acagtaccgc	gtgaggctga	gtgtcctagg	gccagctgga	5100
gaagggccct	ctgcagaggt	gactgcgcgc	actgagtcac	ctcgtgttcc	aagcattgaa	5160
ctacgtgtgg	tggacacctc	gatcgactcg	gtgactttgg	cctggactcc	agtgtccagg	5220
gcatccagct	acatcctatc	ctggcggcca	ctcagaggcc	ctggccagga	agtgcctggg	5280
tccccgcaga	cacttccagg	gatctcaagc	tcccagcggg	tgacagggct	agagcctggc	5340
gtctcttaca	tcttctccct	gacgcctgtc	ctggatgggtg	tgcgggggtcc	tgaggcatct	5400
gtcacacaga	cgccagtgtg	cccccggtggc	ctggcggatg	tgggtgttcct	accacatgcc	5460
actcaagaca	atgctcaccg	tgcggaggct	acgaggaggg	tcctggagcg	tctgggtgtt	5520
gcacttgggc	ctcttggggc	acaggcagtt	caggttggcc	tgctgtctta	cagtcatcgg	5580
ccctccccac	tgttcccact	gaatggctcc	catgaccttg	gcattatctt	gcaaaggatc	5640
cgtgacatgc	cctacatgga	cccaagtggg	aacaacctgg	gcacagccgt	ggtcacagct	5700
cacagataca	tgttggcacc	agatgctcct	gggcgccgcc	agcacgtacc	aggggtgatg	5760
gttctgctag	tggatgaacc	cttgagaggt	gacatattca	gccccatccg	tgaggcccag	5820
gcttctgggc	ttaatgtggt	gatgttggga	atggctggag	cggacccaga	gcagctgcgt	5880
cgcttggcgc	cgggtatgga	ctctgtccag	accttcttcg	ccgtggatga	tgggccaagc	5940
ctggaccagg	cagtcagtgg	tctggccaca	gccctgtgtc	aggcatcctt	cactactcag	6000
ccccggccag	agccctgccc	agtgtattgt	ccaaagggcc	agaaggggga	acctggagag	6060
atgggcctga	gaggacaagt	tgggcctcct	ggcgaccttg	gcctcccggg	caggaccggt	6120
gctcccggcc	cccaggggcc	ccctggaagt	gccactgcca	agggcgagag	gggcttccct	6180
ggagcagatg	ggcgtccagg	cagccctggc	cgcgccggga	atcctgggac	ccctggagcc	6240
cctggcctaa	agggctctcc	agggttgcct	ggccctcgtg	gggacccggg	agagcgagga	6300
cctcgaggcc	caaaggggga	gccgggggct	cccggacaag	tcatcgagg	tgaaggacct	6360
gggcttcctg	ggcggaaaag	ggaccctgga	ccatcggggc	cccctggacc	tcgtggacca	6420
ctggggggacc	caggaccccc	tggcccccca	gggcttcctg	gaacagccat	gaagggtgac	6480
aaaggcgatc	gtggggagcg	gggtccccct	ggaccagggtg	aagggtggcat	tgctcctggg	6540
gagcctgggc	tgccgggtct	tcccgggaagc	cctggacccc	aaggccccgt	tggccccctt	6600
ggaaaagaaa	gagaaaaaag	tgactctgag	gatggagctc	caggcctccc	aggacaacct	6660
gggtctccgg	gtgagcaggg	cccacgggga	cctcctggag	ctattggccc	caaagggtgac	6720
cggggctttc	cagggtcccct	gggtgaggct	ggagagaagg	gcgaacgtgg	acccccaggc	6780
ccagcgggat	cccgggggct	gccagggggtt	gctggacgtc	ctggagccaa	gggtcctgaa	6840
gggcccaccag	gacccactgg	ccgccaagga	gagaaggggg	agcctggtcg	ccctggggac	6900
cctgcagtgg	tgggacctgc	tgttgctgga	cccaaaggag	aaaagggaga	tgtggggccc	6960
gctgggcccc	gaggagctac	cggagtccaa	ggggaacggg	gccccaccgg	cttggttctt	7020
cctggagacc	ctggccccaa	gggagaccct	ggagaccggg	gtcccattgg	ccttactggc	7080
agagcaggac	ccccagggtga	ctcagggcct	cctggagaga	agggagaccc	tgggcggcct	7140
ggccccccag	gacctgttgg	cccccgagga	cgagatgggtg	aagttggaga	gaaagggtgac	7200
gagggtcctc	cgggtgaccc	gggtttgcct	ggaaaagcag	gcgagcgtgg	ccttcggggg	7260

gcacctggag	ttcgggggccc	tgtgggtgaa	aaggagagacc	agggagatcc	tggagaggat	7320
ggacgaaatg	gcagccctgg	atcatctgga	cccaagggtg	accgtgggga	gccgggtccc	7380
ccaggacccc	cgggacggct	ggtagacaca	ggacctggag	ccagagagaa	gggagagcct	7440
ggggaccgcg	gacaagaggg	tcctcgaggg	cccaagggtg	atcctggcct	ccctggagcc	7500
cctggggaaa	ggggcattga	agggtttcgg	ggacccccag	gcccacaggg	ggacccaggt	7560
gtccgaggcc	cagcaggaga	aaagggtgac	cgggggtccc	ctgggctgga	tggccggagc	7620
ggactggatg	ggaaaaccagg	agccgctggg	ccctctgggc	cgaatggtgc	tgcaaggcaaa	7680
gctggggacc	caggagagaga	cgggcttcca	ggcctccgtg	gagaacaggg	cctccctggc	7740
ccctctggtc	cccctggatt	accgggaaaag	ccaggcgagg	atggcaaacc	tggcctgaat	7800
ggaaaaaacg	gagaacctgg	ggaccttggga	gaagacggga	ggaaggagaga	gaaaggagat	7860
tcaggcgccct	ctgggagaga	aggctcgtgat	ggccccaagg	gtgagcgtgg	agctcctggt	7920
atccttggac	cccaggggccc	tccaggccctc	ccagggccag	tgggcccctcc	tggccagggt	7980
tttcttgggtg	tcccaggagg	cacggggcccc	aagggtgacc	gtggggagac	tggatccaaa	8040
ggggagcagg	gcctccctgg	agagcgtggc	ctgcgaggag	agcctggaag	tgtgccgaat	8100
gtggatcggt	tgctggaaac	tgctggcatc	aaggcatctg	ccctgcggga	gatcgtggag	8160
acctgggatg	agagctctgg	tagcttcctg	cctgtgcccg	aacggcgtcg	aggccccaag	8220
ggggactcag	gcgaacaggg	ccccccaggc	aaggagggcc	ccatcggctt	tcctggagaa	8280
cgcgggctga	agggcgaccg	tggagaccct	ggccctcagg	ggccacctgg	tctggccctt	8340
ggggagaggg	gcccccccgg	gccttccggc	cttgccgggg	agcctggaaa	gcctggtatt	8400
cccgggctcc	caggcagggc	tgggggtgtg	ggagaggcag	gaaggccagg	agagagggga	8460
gaacggggag	agaaaaggaga	acgtggagaa	cagggcagag	atggccctcc	tggactccct	8520
ggaacccctg	ggccccccgg	accccctggc	cccaagggtg	ctgtggatga	gccaggtcct	8580
ggactctctg	gagaacaggg	accccctgga	ctcaagggtg	ctaaggggga	gccgggcagc	8640
aatggtgacc	aagggtcccaa	aggagacagg	ggtgtgccag	gcatcaaagg	agaccgggga	8700
gagcctggac	cgagggggtca	ggacggcaac	ccgggtctac	caggagagcg	tggtatggct	8760
gggcctgaag	ggaagccggg	tctgcagggt	ccaagaggcc	cccctggccc	agtgggtggt	8820
catggagacc	ctggaccacc	tggtgccccg	ggtcttgctg	gccctgcagg	acccaaggga	8880
ccttctggcc	tgaaggggga	gcctggagag	acaggacctc	caggacgggg	cctgactgga	8940
cctactggag	ctgtgggact	tcctggaccc	cccggccctt	caggccttgt	gggtccacag	9000
gggtctccag	gtttgcctgg	acaagtgggg	gagacaggga	agccgggagc	cccaggtcga	9060
gatggtgcca	gtggaaaaga	tggagacaga	gggagccctg	gtgtgccagg	gtcaccaggt	9120
ctgcctggcc	ctgtcggacc	taaaaggagaa	cctggcccca	cgggggcccc	tggacaggct	9180
gtggtcgggc	tccctggagc	aaaggagagag	aagggagccc	ctggaggcct	tgctggagac	9240
ctggtgggtg	agccggggagc	caaagggtgac	cgaggactgc	cagggccgcg	aggcgagaag	9300
ggtgaagctg	gccgtgcagg	ggagcccggga	gaccctgggg	aagatggtca	gaaaggggct	9360
ccaggaccca	aaggtttcaa	gggtgaccca	ggagtcgggg	tcccgggctc	ccctgggcct	9420
cctggccctc	cagggtgtgaa	gggagatctg	ggcctccctg	gcctgcccgg	tgctcctggt	9480
gttgttgggt	tcccgggtca	gacaggccct	cgaggagaga	tgggtcagcc	aggccctagt	9540
ggagagcggg	gtctggcagg	ccccccaggg	agagaaggaa	tcccaggacc	cctggggcca	9600
cctggaccac	cggggctcagt	gggaccacct	ggggcctctg	gactcaaagg	agacaaggga	9660
gaccctggag	tagggctgcc	tgggccccga	ggcgagcgtg	gggagccagg	catccgggggt	9720
gaagatggcc	gccccggcca	ggagggaacc	cgaggactca	cggggccccc	tggcagcagg	9780
ggagagcgtg	gggagaaggg	tgatgttggg	agtgacggac	taaaagggtga	caaggagagac	9840
tcagctgtga	tcctggggcc	tccaggccca	cgggggtgcca	agggggacat	gggtgaacga	9900
gggcctcggg	gcttggatgg	tgacaaaagg	cctcggggag	acaatgggga	ccctggtgac	9960
aagggcagca	agggagagcc	tggtgacaag	ggctcagccg	ggttgccagg	actgcgtgga	10020
ctcctgggac	cccagggtca	acctggtgca	gcagggatcc	ctggtgaccc	gggatcccca	10080
ggaaaaggatg	gagtgccctg	tatccgagga	gaaaaaggag	atgttggtctt	catgggtccc	10140
cggggcctca	aggggtgaacg	gggagtgaag	ggagcctgtg	gccttgatgg	agagaaggga	10200
gacaaggggag	aagctggtcc	cccaggccgc	cccgggctgg	caggacacaa	aggagagatg	10260

```

ggggagcctg gtgtgccggg ccagtcgggg gccctggca aggagggcct gatcgggtccc 10320
aagggtgacc gaggttttga cgggcagcca ggccccaagg gtgaccaggg cgagaaaggg 10380
gagcgggggaa ccccaggaat tgggggcttc ccaggcccca gtggaaatga tggctctgct 10440
gggtcccccag ggccacctgg cagtgttggg cccagaggcc ccgaaggact tcaggggccag 10500
aagggtgagc gaggtccccc cggagagaga gtggtggggg ctcttggggg ccctggagct 10560
cctggcgaga gaggggagca ggggcggcca gggcctgccg gtcctcgagg cgagaaggga 10620
gaagctgcac tgacggagga tgacatccgg ggctttgtgc gccaagagat gagtcagcac 10680
tgtgcctgcc agggccagtt catcgcacat ggatcacgac ccctccctag ttatgctgca 10740
gacactgccg gctcccagct ccatgctgtg cctgtgctcc gcgtctctca tgcagaggag 10800
gaagagcggg tacccttga ggatgatgag tactctgaat actccgagta ttctgtggag 10860
gagtaccagg accctgaagc tccttgggat agtgatgacc cctgttccct gccactggat 10920
gagggctcct gcaactgccta caccctgcgc tgggtaccatc gggctgtgac aggcagcaca 10980
gaggcctgtc acccttttgt ctatggtggc tgtggaggga atgccaaccg ttttgggacc 11040
cgtgaggcct gcgagcgccg ctgcccaccc cgggtgggtcc agagccaggg gacaggtact 11100
gccaggact ga 11112

```

<210> 20

<211> 3703

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 20

```

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

```

		195					200					205				
Ser	Leu	Asn	Leu	Asp	His	Lys	Ser	Arg	Ile	Phe	Gln	Asn	Leu	Asn	Gly	
	210					215					220					
Ala	Leu	Asp	Glu	Val	Val	Leu	Lys	Phe	Asp	Arg	Asn	Arg	Val	Arg	Ile	
225					230					235					240	
Arg	Asn	Val	Ala	Tyr	Asp	Thr	Leu	Pro	Ile	Val	Val	His	Gly	Asn	Gly	
				245					250					255		
Pro	Thr	Lys	Leu	Gln	Leu	Asn	Tyr	Leu	Gly	Asn	Tyr	Val	Pro	Asn	Gly	
			260					265					270			
Trp	Thr	Pro	Glu	Gly	Gly	Cys	Gly	Phe	Cys	Asn	Gln	Asp	Arg	Arg	Thr	
		275					280					285				
Leu	Pro	Gly	Gly	Gln	Pro	Pro	Pro	Arg	Val	Phe	Leu	Ala	Val	Phe	Val	
	290					295					300					
Glu	Gln	Pro	Thr	Pro	Phe	Leu	Pro	Arg	Phe	Leu	Gln	Arg	Leu	Leu	Leu	
305					310					315					320	
Leu	Asp	Tyr	Pro	Pro	Asp	Arg	Val	Thr	Leu	Phe	Leu	His	Asn	Asn	Glu	
				325					330					335		
Val	Phe	His	Glu	Pro	His	Ile	Ala	Asp	Ser	Trp	Pro	Gln	Leu	Gln	Asp	
			340					345					350			
His	Phe	Ser	Ala	Val	Lys	Leu	Val	Gly	Pro	Glu	Glu	Ala	Leu	Ser	Pro	
		355					360					365				
Gly	Glu	Ala	Arg	Asp	Met	Ala	Met	Asp	Leu	Cys	Arg	Gln	Asp	Pro	Glu	
	370					375					380					
Cys	Glu	Phe	Tyr	Phe	Ser	Leu	Asp	Ala	Asp	Ala	Val	Leu	Thr	Asn	Leu	
385					390					395					400	
Gln	Thr	Leu	Arg	Ile	Leu	Ile	Glu	Glu	Asn	Arg	Lys	Val	Ile	Ala	Pro	
				405					410					415		
Met	Leu	Ser	Arg	His	Gly	Lys	Leu	Trp	Ser	Asn	Phe	Trp	Gly	Ala	Leu	
			420					425					430			
Ser	Pro	Asp	Glu	Tyr	Tyr	Ala	Arg	Ser	Glu	Asp	Tyr	Val	Glu	Leu	Val	
		435					440					445				
Gln	Arg	Lys	Arg	Val	Gly	Val	Trp	Asn	Val	Pro	Tyr	Ile	Ser	Gln	Ala	
	450					455					460					
Tyr	Val	Ile	Arg	Gly	Asp	Thr	Leu	Arg	Met	Glu	Leu	Pro	Gln	Arg	Asp	
465					470					475					480	
Val	Phe	Ser	Gly	Ser	Asp	Thr	Asp	Pro	Asp	Met	Ala	Phe	Cys	Lys	Ser	
				485					490					495		
Phe	Arg	Asp	Lys	Gly	Ile	Phe	Leu	His	Leu	Ser	Asn	Gln	His	Glu	Phe	
			500					505					510			
Gly	Arg	Leu	Leu	Ala	Thr	Ser	Arg	Tyr	Asp	Thr	Glu	His	Leu	His	Pro	
		515					520					525				
Asp	Leu	Trp	Gln	Ile	Phe	Asp	Asn	Pro	Val	Asp	Trp	Lys	Glu	Gln	Tyr	
	530					535					540					
Ile	His	Glu	Asn	Tyr	Ser	Arg	Ala	Leu	Glu	Gly	Glu	Gly	Ile	Val	Glu	
545					550											

		595					600				605				
Thr	Val	Asp	Ile	His	Met	Lys	Gln	Val	Gly	Tyr	Glu	Asp	Gln	Trp	Leu
610						615					620				
Gln	Leu	Leu	Arg	Thr	Tyr	Val	Gly	Pro	Met	Thr	Glu	Ser	Leu	Phe	Pro
625					630					635					640
Gly	Tyr	His	Thr	Lys	Ala	Arg	Ala	Val	Met	Asn	Phe	Val	Val	Arg	Tyr
				645					650					655	
Arg	Pro	Asp	Glu	Gln	Pro	Ser	Leu	Arg	Pro	His	His	Asp	Ser	Ser	Thr
		660					665					670			
Phe	Thr	Leu	Asn	Val	Ala	Leu	Asn	His	Lys	Gly	Leu	Asp	Tyr	Glu	Gly
	675						680				685				
Gly	Gly	Cys	Arg	Phe	Leu	Arg	Tyr	Asp	Cys	Val	Ile	Ser	Ser	Pro	Arg
690						695					700				
Lys	Gly	Trp	Ala	Leu	Leu	His	Pro	Gly	Arg	Leu	Thr	His	Tyr	His	Glu
705					710					715					720
Gly	Leu	Pro	Thr	Thr	Trp	Gly	Thr	Arg	Tyr	Ile	Met	Val	Ser	Phe	Val
				725					730					735	
Asp	Pro	Gly	Ser	Gly	Ala	Thr	Asn	Phe	Ser	Leu	Leu	Lys	Gln	Ala	Gly
		740						745					750		
Asp	Val	Glu	Glu	Asn	Pro	Gly	Pro	Thr	Leu	Arg	Leu	Leu	Val	Ala	Ala
	755						760					765			
Leu	Cys	Ala	Gly	Ile	Leu	Ala	Glu	Ala	Pro	Arg	Val	Arg	Ala	Gln	His
770						775					780				
Arg	Glu	Arg	Val	Thr	Cys	Thr	Arg	Leu	Tyr	Ala	Ala	Asp	Ile	Val	Phe
785					790					795					800
Leu	Leu	Asp	Gly	Ser	Ser	Ser	Ile	Gly	Arg	Ser	Asn	Phe	Arg	Glu	Val
			805						810					815	
Arg	Ser	Phe	Leu	Glu	Gly	Leu	Val	Leu	Pro	Phe	Ser	Gly	Ala	Ala	Ser
		820						825					830		
Ala	Gln	Gly	Val	Arg	Phe	Ala	Thr	Val	Gln	Tyr	Ser	Asp	Asp	Pro	Arg
	835						840					845			
Thr	Glu	Phe	Gly	Leu	Asp	Ala	Leu	Gly	Ser	Gly	Gly	Asp	Val	Ile	Arg
850						855					860				
Ala	Ile	Arg	Glu	Leu	Ser	Tyr	Lys	Gly	Gly	Asn	Thr	Arg	Thr	Gly	Ala
865					870					875					880
Ala	Ile	Leu	His	Val	Ala	Asp	His	Val	Phe	Leu	Pro	Gln	Leu	Ala	Arg
			885						890					895	
Pro	Gly	Val	Pro	Lys	Val	Cys	Ile	Leu	Ile	Thr	Asp	Gly	Lys	Ser	Gln
		900						905				910			
Asp	Leu	Val	Asp	Thr	Ala	Ala	Gln	Arg	Leu	Lys	Gly	Gln	Gly	Val	Lys
	915						920					925			
Leu	Phe	Ala	Val	Gly	Ile	Lys	Asn	Ala	Asp	Pro	Glu	Glu	Leu	Lys	Arg
930						935					940				
Val	Ala	Ser	Gln	Pro	Thr	Ser	Asp	Phe	Phe	Phe	Phe	Val	Asn	Asp	Phe
945					950					955					960
Ser	Ile	Leu	Arg	Thr	Leu	Leu	Pro	Leu	Val	Ser	Arg	Arg	Val	Cys	Thr
			965						970					975	
Thr	Ala	Gly	Gly	Val	Pro	Val	Thr	Arg	Pro	Pro	Asp	Asp	Ser	Thr	Ser
		980						985					990		
Ala	Pro	Arg	Asp	Leu	Val	Leu	Ser	Glu	Pro	Ser	Ser	Gln	Ser	Leu	Arg

995	1000	1005
Val Gln Trp Thr Ala Ala Ser Gly Pro Val Thr Gly Tyr Lys Val Gln		
1010	1015	1020
Tyr Thr Pro Leu Thr Gly Leu Gly Gln Pro Leu Pro Ser Glu Arg Gln		
1025	1030	1035
Glu Val Asn Val Pro Ala Gly Glu Thr Ser Val Arg Leu Arg Gly Leu		
1045	1050	1055
Arg Pro Leu Thr Glu Tyr Gln Val Thr Val Ile Ala Leu Tyr Ala Asn		
1060	1065	1070
Ser Ile Gly Glu Ala Val Ser Gly Thr Ala Arg Thr Thr Ala Leu Glu		
1075	1080	1085
Gly Pro Glu Leu Thr Ile Gln Asn Thr Thr Ala His Ser Leu Leu Val		
1090	1095	1100
Ala Trp Arg Ser Val Pro Gly Ala Thr Gly Tyr Arg Val Thr Trp Arg		
1105	1110	1115
Val Leu Ser Gly Gly Pro Thr Gln Gln Gln Glu Leu Gly Pro Gly Gln		
1125	1130	1135
Gly Ser Val Leu Leu Arg Asp Leu Glu Pro Gly Thr Asp Tyr Glu Val		
1140	1145	1150
Thr Val Ser Thr Leu Phe Gly Arg Ser Val Gly Pro Ala Thr Ser Leu		
1155	1160	1165
Met Ala Arg Thr Asp Ala Ser Val Glu Gln Thr Leu Arg Pro Val Ile		
1170	1175	1180
Leu Gly Pro Thr Ser Ile Leu Leu Ser Trp Asn Leu Val Pro Glu Ala		
1185	1190	1195
Arg Gly Tyr Arg Leu Glu Trp Arg Arg Glu Thr Gly Leu Glu Pro Pro		
1205	1210	1215
Gln Lys Val Val Leu Pro Ser Asp Val Thr Arg Tyr Gln Leu Asp Gly		
1220	1225	1230
Leu Gln Pro Gly Thr Glu Tyr Arg Leu Thr Leu Tyr Thr Leu Leu Glu		
1235	1240	1245
Gly His Glu Val Ala Thr Pro Ala Thr Val Val Pro Thr Gly Pro Glu		
1250	1255	1260
Leu Pro Val Ser Pro Val Thr Asp Leu Gln Ala Thr Glu Leu Pro Gly		
1265	1270	1275
Gln Arg Val Arg Val Ser Trp Ser Pro Val Pro Gly Ala Thr Gln Tyr		
1285	1290	1295
Arg Ile Ile Val Arg Ser Thr Gln Gly Val Glu Arg Thr Leu Val Leu		
1300	1305	1310
Pro Gly Ser Gln Thr Ala Phe Asp Leu Asp Asp Val Gln Ala Gly Leu		
1315	1320	1325
Ser Tyr Thr Val Arg Val Ser Ala Arg Val Gly Pro Arg Glu Gly Ser		
1330	1335	1340
Ala Ser Val Leu Thr Val Arg Arg Glu Pro Glu Thr Pro Leu Ala Val		
1345	1350	1355
Pro Gly Leu Arg Val Val Val Ser Asp Ala Thr Arg Val Arg Val Ala		
1365	1370	1375
Trp Gly Pro Val Pro Gly Ala Ser Gly Phe Arg Ile Ser Trp Ser Thr		
1380	1385	1390
Gly Ser Gly Pro Glu Ser Ser Gln Thr Leu Pro Pro Asp Ser Thr Ala		

1395	1400	1405
Thr Asp Ile Thr Gly Leu Gln Pro Gly Thr Thr Tyr Gln Val Ala Val		
1410	1415	1420
Ser Val Leu Arg Gly Arg Glu Gly Pro Ala Ala Val Ile Val Ala		
1425	1430	1435
Arg Thr Asp Pro Leu Gly Pro Val Arg Thr Val His Val Thr Gln Ala		
1445	1450	1455
Ser Ser Ser Ser Val Thr Ile Thr Trp Thr Arg Val Pro Gly Ala Thr		
1460	1465	1470
Gly Tyr Arg Val Ser Trp His Ser Ala His Gly Pro Glu Lys Ser Gln		
1475	1480	1485
Leu Val Ser Gly Glu Ala Thr Val Ala Glu Leu Asp Gly Leu Glu Pro		
1490	1495	1500
Asp Thr Glu Tyr Thr Val His Val Arg Ala His Val Ala Gly Val Asp		
1505	1510	1515
Gly Pro Pro Ala Ser Val Val Val Arg Thr Ala Pro Glu Pro Val Gly		
1525	1530	1535
Arg Val Ser Arg Leu Gln Ile Leu Asn Ala Ser Ser Asp Val Leu Arg		
1540	1545	1550
Ile Thr Trp Val Gly Val Thr Gly Ala Thr Ala Tyr Arg Leu Ala Trp		
1555	1560	1565
Gly Arg Ser Glu Gly Gly Pro Met Arg His Gln Ile Leu Pro Gly Asn		
1570	1575	1580
Thr Asp Ser Ala Glu Ile Arg Gly Leu Glu Gly Gly Val Ser Tyr Ser		
1585	1590	1595
Val Arg Val Thr Ala Leu Val Gly Asp Arg Glu Gly Thr Pro Val Ser		
1605	1610	1615
Ile Val Val Thr Thr Pro Pro Glu Ala Pro Pro Ala Leu Gly Thr Leu		
1620	1625	1630
His Val Val Gln Arg Gly Glu His Ser Leu Arg Leu Arg Trp Glu Pro		
1635	1640	1645
Val Pro Arg Ala Gln Gly Phe Leu Leu His Trp Gln Pro Glu Gly Gly		
1650	1655	1660
Gln Glu Gln Ser Arg Val Leu Gly Pro Glu Leu Ser Ser Tyr His Leu		
1665	1670	1675
Asp Gly Leu Glu Pro Ala Thr Gln Tyr Arg Val Arg Leu Ser Val Leu		
1685	1690	1695
Gly Pro Ala Gly Glu Gly Pro Ser Ala Glu Val Thr Ala Arg Thr Glu		
1700	1705	1710
Ser Pro Arg Val Pro Ser Ile Glu Leu Arg Val Val Asp Thr Ser Ile		
1715	1720	1725
Asp Ser Val Thr Leu Ala Trp Thr Pro Val Ser Arg Ala Ser Ser Tyr		
1730	1735	1740
Ile Leu Ser Trp Arg Pro Leu Arg Gly Pro Gly Gln Glu Val Pro Gly		
1745	1750	1755
Ser Pro Gln Thr Leu Pro Gly Ile Ser Ser Ser Gln Arg Val Thr Gly		
1765	1770	1775
Leu Glu Pro Gly Val Ser Tyr Ile Phe Ser Leu Thr Pro Val Leu Asp		
1780	1785	1790
Gly Val Arg Gly Pro Glu Ala Ser Val Thr Gln Thr Pro Val Cys Pro		

1795	1800	1805
Arg Gly Leu Ala Asp Val	Val Phe Leu Pro His	Ala Thr Gln Asp Asn
1810	1815	1820
Ala His Arg Ala Glu Ala Thr	Arg Arg Val Leu Glu Arg	Leu Val Leu
1825	1830	1835
Ala Leu Gly Pro Leu Gly Pro	Gln Ala Val Gln Val	Gly Leu Leu Ser
1845	1850	1855
Tyr Ser His Arg Pro Ser Pro	Leu Phe Pro Leu Asn	Gly Ser His Asp
1860	1865	1870
Leu Gly Ile Ile Leu Gln Arg	Ile Arg Asp Met Pro	Tyr Met Asp Pro
1875	1880	1885
Ser Gly Asn Asn Leu Gly Thr	Ala Val Val Thr Ala	His Arg Tyr Met
1890	1895	1900
Leu Ala Pro Asp Ala Pro Gly	Arg Arg Gln His Val	Pro Gly Val Met
1905	1910	1915
Val Leu Leu Val Asp Glu Pro	Leu Arg Gly Asp Ile	Phe Ser Pro Ile
1925	1930	1935
Arg Glu Ala Gln Ala Ser Gly	Leu Asn Val Val Met	Leu Gly Met Ala
1940	1945	1950
Gly Ala Asp Pro Glu Gln Leu	Arg Arg Leu Ala Pro	Gly Met Asp Ser
1955	1960	1965
Val Gln Thr Phe Phe Ala Val	Asp Asp Gly Pro Ser	Leu Asp Gln Ala
1970	1975	1980
Val Ser Gly Leu Ala Thr Ala	Leu Cys Gln Ala Ser	Phe Thr Thr Gln
1985	1990	1995
Pro Arg Pro Glu Pro Cys Pro	Val Tyr Cys Pro Lys	Gly Gln Lys Gly
2005	2010	2015
Glu Pro Gly Glu Met Gly Leu	Arg Gly Gln Val Gly	Pro Pro Gly Asp
2020	2025	2030
Pro Gly Leu Pro Gly Arg Thr	Gly Ala Pro Gly Pro	Gln Gly Pro Pro
2035	2040	2045
Gly Ser Ala Thr Ala Lys Gly	Glu Arg Gly Phe Pro	Gly Ala Asp Gly
2050	2055	2060
Arg Pro Gly Ser Pro Gly Arg	Ala Gly Asn Pro Gly	Thr Pro Gly Ala
2065	2070	2075
Pro Gly Leu Lys Gly Ser Pro	Gly Leu Pro Gly Pro	Arg Gly Asp Pro
2085	2090	2095
Gly Glu Arg Gly Pro Arg Gly	Pro Lys Gly Glu Pro	Gly Ala Pro Gly
2100	2105	2110
Gln Val Ile Gly Gly Glu Gly	Pro Gly Leu Pro Gly	Arg Lys Gly Asp
2115	2120	2125
Pro Gly Pro Ser Gly Pro Pro	Gly Pro Arg Gly Pro	Leu Gly Asp Pro
2130	2135	2140
Gly Pro Arg Gly Pro Pro Gly	Leu Pro Gly Thr Ala	Met Lys Gly Asp
2145	2150	2155
Lys Gly Asp Arg Gly Glu Arg	Gly Pro Pro Gly Pro	Gly Glu Gly Gly
2165	2170	2175
Ile Ala Pro Gly Glu Pro Gly	Leu Pro Gly Leu Pro	Gly Ser Pro Gly
2180	2185	2190
Pro Gln Gly Pro Val Gly Pro	Pro Gly Lys Lys Gly	Glu Lys Gly Asp

2195	2200	2205
Ser Glu Asp Gly Ala Pro Gly Leu Pro Gly Gln Pro Gly Ser Pro Gly		
2210	2215	2220
Glu Gln Gly Pro Arg Gly Pro Pro Gly Ala Ile Gly Pro Lys Gly Asp		
2225	2230	2235
Arg Gly Phe Pro Gly Pro Leu Gly Glu Ala Gly Glu Lys Gly Glu Arg		
2245	2250	2255
Gly Pro Pro Gly Pro Ala Gly Ser Arg Gly Leu Pro Gly Val Ala Gly		
2260	2265	2270
Arg Pro Gly Ala Lys Gly Pro Glu Gly Pro Pro Gly Pro Thr Gly Arg		
2275	2280	2285
Gln Gly Glu Lys Gly Glu Pro Gly Arg Pro Gly Asp Pro Ala Val Val		
2290	2295	2300
Gly Pro Ala Val Ala Gly Pro Lys Gly Glu Lys Gly Asp Val Gly Pro		
2305	2310	2315
Ala Gly Pro Arg Gly Ala Thr Gly Val Gln Gly Glu Arg Gly Pro Pro		
2325	2330	2335
Gly Leu Val Leu Pro Gly Asp Pro Gly Pro Lys Gly Asp Pro Gly Asp		
2340	2345	2350
Arg Gly Pro Ile Gly Leu Thr Gly Arg Ala Gly Pro Pro Gly Asp Ser		
2355	2360	2365
Gly Pro Pro Gly Glu Lys Gly Asp Pro Gly Arg Pro Gly Pro Pro Gly		
2370	2375	2380
Pro Val Gly Pro Arg Gly Arg Asp Gly Glu Val Gly Glu Lys Gly Asp		
2385	2390	2395
Glu Gly Pro Pro Gly Asp Pro Gly Leu Pro Gly Lys Ala Gly Glu Arg		
2405	2410	2415
Gly Leu Arg Gly Ala Pro Gly Val Arg Gly Pro Val Gly Glu Lys Gly		
2420	2425	2430
Asp Gln Gly Asp Pro Gly Glu Asp Gly Arg Asn Gly Ser Pro Gly Ser		
2435	2440	2445
Ser Gly Pro Lys Gly Asp Arg Gly Glu Pro Gly Pro Pro Gly Pro Pro		
2450	2455	2460
Gly Arg Leu Val Asp Thr Gly Pro Gly Ala Arg Glu Lys Gly Glu Pro		
2465	2470	2475
Gly Asp Arg Gly Gln Glu Gly Pro Arg Gly Pro Lys Gly Asp Pro Gly		
2485	2490	2495
Leu Pro Gly Ala Pro Gly Glu Arg Gly Ile Glu Gly Phe Arg Gly Pro		
2500	2505	2510
Pro Gly Pro Gln Gly Asp Pro Gly Val Arg Gly Pro Ala Gly Glu Lys		
2515	2520	2525
Gly Asp Arg Gly Pro Pro Gly Leu Asp Gly Arg Ser Gly Leu Asp Gly		
2530	2535	2540
Lys Pro Gly Ala Ala Gly Pro Ser Gly Pro Asn Gly Ala Ala Gly Lys		
2545	2550	2555
Ala Gly Asp Pro Gly Arg Asp Gly Leu Pro Gly Leu Arg Gly Glu Gln		
2565	2570	2575
Gly Leu Pro Gly Pro Ser Gly Pro Pro Gly Leu Pro Gly Lys Pro Gly		
2580	2585	2590
Glu Asp Gly Lys Pro Gly Leu Asn Gly Lys Asn Gly Glu Pro Gly Asp		

2595	2600	2605
Pro Gly Glu Asp Gly Arg Lys Gly Glu Lys Gly Asp Ser Gly Ala Ser		
2610	2615	2620
Gly Arg Glu Gly Arg Asp Gly Pro Lys Gly Glu Arg Gly Ala Pro Gly		
2625	2630	2635
Ile Leu Gly Pro Gln Gly Pro Pro Gly Leu Pro Gly Pro Val Gly Pro		
2645	2650	2655
Pro Gly Gln Gly Phe Pro Gly Val Pro Gly Gly Thr Gly Pro Lys Gly		
2660	2665	2670
Asp Arg Gly Glu Thr Gly Ser Lys Gly Glu Gln Gly Leu Pro Gly Glu		
2675	2680	2685
Arg Gly Leu Arg Gly Glu Pro Gly Ser Val Pro Asn Val Asp Arg Leu		
2690	2695	2700
Leu Glu Thr Ala Gly Ile Lys Ala Ser Ala Leu Arg Glu Ile Val Glu		
2705	2710	2715
Thr Trp Asp Glu Ser Ser Gly Ser Phe Leu Pro Val Pro Glu Arg Arg		
2725	2730	2735
Arg Gly Pro Lys Gly Asp Ser Gly Glu Gln Gly Pro Pro Gly Lys Glu		
2740	2745	2750
Gly Pro Ile Gly Phe Pro Gly Glu Arg Gly Leu Lys Gly Asp Arg Gly		
2755	2760	2765
Asp Pro Gly Pro Gln Gly Pro Pro Gly Leu Ala Leu Gly Glu Arg Gly		
2770	2775	2780
Pro Pro Gly Pro Ser Gly Leu Ala Gly Glu Pro Gly Lys Pro Gly Ile		
2785	2790	2795
Pro Gly Leu Pro Gly Arg Ala Gly Gly Val Gly Glu Ala Gly Arg Pro		
2805	2810	2815
Gly Glu Arg Gly Glu Arg Gly Glu Lys Gly Glu Arg Gly Glu Gln Gly		
2820	2825	2830
Arg Asp Gly Pro Pro Gly Leu Pro Gly Thr Pro Gly Pro Pro Gly Pro		
2835	2840	2845
Pro Gly Pro Lys Val Ser Val Asp Glu Pro Gly Pro Gly Leu Ser Gly		
2850	2855	2860
Glu Gln Gly Pro Pro Gly Leu Lys Gly Ala Lys Gly Glu Pro Gly Ser		
2865	2870	2875
Asn Gly Asp Gln Gly Pro Lys Gly Asp Arg Gly Val Pro Gly Ile Lys		
2885	2890	2895
Gly Asp Arg Gly Glu Pro Gly Pro Arg Gly Gln Asp Gly Asn Pro Gly		
2900	2905	2910
Leu Pro Gly Glu Arg Gly Met Ala Gly Pro Glu Gly Lys Pro Gly Leu		
2915	2920	2925
Gln Gly Pro Arg Gly Pro Pro Gly Pro Val Gly Gly His Gly Asp Pro		
2930	2935	2940
Gly Pro Pro Gly Ala Pro Gly Leu Ala Gly Pro Ala Gly Pro Gln Gly		
2945	2950	2955
Pro Ser Gly Leu Lys Gly Glu Pro Gly Glu Thr Gly Pro Pro Gly Arg		
2965	2970	2975
Gly Leu Thr Gly Pro Thr Gly Ala Val Gly Leu Pro Gly Pro Pro Gly		
2980	2985	2990
Pro Ser Gly Leu Val Gly Pro Gln Gly Ser Pro Gly Leu Pro Gly Gln		

2995	3000	3005
Val Gly Glu Thr Gly Lys Pro Gly Ala Pro Gly Arg Asp Gly Ala Ser		
3010	3015	3020
Gly Lys Asp Gly Asp Arg Gly Ser Pro Gly Val Pro Gly Ser Pro Gly		
3025	3030	3035
Leu Pro Gly Pro Val Gly Pro Lys Gly Glu Pro Gly Pro Thr Gly Ala		
3045	3050	3055
Pro Gly Gln Ala Val Val Gly Leu Pro Gly Ala Lys Gly Glu Lys Gly		
3060	3065	3070
Ala Pro Gly Gly Leu Ala Gly Asp Leu Val Gly Glu Pro Gly Ala Lys		
3075	3080	3085
Gly Asp Arg Gly Leu Pro Gly Pro Arg Gly Glu Lys Gly Glu Ala Gly		
3090	3095	3100
Arg Ala Gly Glu Pro Gly Asp Pro Gly Glu Asp Gly Gln Lys Gly Ala		
3105	3110	3115
Pro Gly Pro Lys Gly Phe Lys Gly Asp Pro Gly Val Gly Val Pro Gly		
3125	3130	3135
Ser Pro Gly Pro Pro Gly Pro Pro Gly Val Lys Gly Asp Leu Gly Leu		
3140	3145	3150
Pro Gly Leu Pro Gly Ala Pro Gly Val Val Gly Phe Pro Gly Gln Thr		
3155	3160	3165
Gly Pro Arg Gly Glu Met Gly Gln Pro Gly Pro Ser Gly Glu Arg Gly		
3170	3175	3180
Leu Ala Gly Pro Pro Gly Arg Glu Gly Ile Pro Gly Pro Leu Gly Pro		
3185	3190	3195
Pro Gly Pro Pro Gly Ser Val Gly Pro Pro Gly Ala Ser Gly Leu Lys		
3205	3210	3215
Gly Asp Lys Gly Asp Pro Gly Val Gly Leu Pro Gly Pro Arg Gly Glu		
3220	3225	3230
Arg Gly Glu Pro Gly Ile Arg Gly Glu Asp Gly Arg Pro Gly Gln Glu		
3235	3240	3245
Gly Pro Arg Gly Leu Thr Gly Pro Pro Gly Ser Arg Gly Glu Arg Gly		
3250	3255	3260
Glu Lys Gly Asp Val Gly Ser Ala Gly Leu Lys Gly Asp Lys Gly Asp		
3265	3270	3275
Ser Ala Val Ile Leu Gly Pro Pro Gly Pro Arg Gly Ala Lys Gly Asp		
3285	3290	3295
Met Gly Glu Arg Gly Pro Arg Gly Leu Asp Gly Asp Lys Gly Pro Arg		
3300	3305	3310
Gly Asp Asn Gly Asp Pro Gly Asp Lys Gly Ser Lys Gly Glu Pro Gly		
3315	3320	3325
Asp Lys Gly Ser Ala Gly Leu Pro Gly Leu Arg Gly Leu Leu Gly Pro		
3330	3335	3340
Gln Gly Gln Pro Gly Ala Ala Gly Ile Pro Gly Asp Pro Gly Ser Pro		
3345	3350	3355
Gly Lys Asp Gly Val Pro Gly Ile Arg Gly Glu Lys Gly Asp Val Gly		
3365	3370	3375
Phe Met Gly Pro Arg Gly Leu Lys Gly Glu Arg Gly Val Lys Gly Ala		
3380	3385	3390
Cys Gly Leu Asp Gly Glu Lys Gly Asp Lys Gly Glu Ala Gly Pro Pro		

3395	3400	3405
Gly Arg Pro Gly Leu Ala Gly His Lys Gly Glu Met Gly Glu Pro Gly		
3410	3415	3420
Val Pro Gly Gln Ser Gly Ala Pro Gly Lys Glu Gly Leu Ile Gly Pro		
3425	3430	3435
Lys Gly Asp Arg Gly Phe Asp Gly Gln Pro Gly Pro Lys Gly Asp Gln		
3445	3450	3455
Gly Glu Lys Gly Glu Arg Gly Thr Pro Gly Ile Gly Gly Phe Pro Gly		
3460	3465	3470
Pro Ser Gly Asn Asp Gly Ser Ala Gly Pro Pro Gly Pro Pro Gly Ser		
3475	3480	3485
Val Gly Pro Arg Gly Pro Glu Gly Leu Gln Gly Gln Lys Gly Glu Arg		
3490	3495	3500
Gly Pro Pro Gly Glu Arg Val Val Gly Ala Pro Gly Val Pro Gly Ala		
3505	3510	3515
Pro Gly Glu Arg Gly Glu Gln Gly Arg Pro Gly Pro Ala Gly Pro Arg		
3525	3530	3535
Gly Glu Lys Gly Glu Ala Ala Leu Thr Glu Asp Asp Ile Arg Gly Phe		
3540	3545	3550
Val Arg Gln Glu Met Ser Gln His Cys Ala Cys Gln Gly Gln Phe Ile		
3555	3560	3565
Ala Ser Gly Ser Arg Pro Leu Pro Ser Tyr Ala Ala Asp Thr Ala Gly		
3570	3575	3580
Ser Gln Leu His Ala Val Pro Val Leu Arg Val Ser His Ala Glu Glu		
3585	3590	3595
Glu Glu Arg Val Pro Pro Glu Asp Asp Glu Tyr Ser Glu Tyr Ser Glu		
3605	3610	3615
Tyr Ser Val Glu Glu Tyr Gln Asp Pro Glu Ala Pro Trp Asp Ser Asp		
3620	3625	3630
Asp Pro Cys Ser Leu Pro Leu Asp Glu Gly Ser Cys Thr Ala Tyr Thr		
3635	3640	3645
Leu Arg Trp Tyr His Arg Ala Val Thr Gly Ser Thr Glu Ala Cys His		
3650	3655	3660
Pro Phe Val Tyr Gly Gly Cys Gly Gly Asn Ala Asn Arg Phe Gly Thr		
3665	3670	3675
Arg Glu Ala Cys Glu Arg Arg Cys Pro Pro Arg Val Val Gln Ser Gln		
3685	3690	3695
Gly Thr Gly Thr Ala Gln Asp		
3700		

<210> 21

<211> 11115

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 21

atgacgctgc	ggcttctggt	ggccgcgctc	tgcgccggga	tcctggcaga	ggcgccccga	60
gtgcgagccc	agcacaggga	gagagtgacc	tgcacgcgcc	tttacgccgc	tgacattgtg	120
ttcttactgg	atggctcctc	atccattggc	cgagcaatt	tccgcgaggt	ccgcagcttt	180
ctcgaagggc	tgggtgctgcc	tttctctgga	gcagccagtg	cacaggggtg	gcgctttgcc	240
acagtgcagt	acagcgatga	cccacggaca	gagttcggcc	tggatgcact	tggctctggg	300
ggtgatgtga	tccgcgccat	ccgtgagctt	agctacaagg	ggggcaacac	tcgcacaggg	360
gctgcaattc	tccatgtggc	tgaccatgtc	ttcctgcccc	agctggcccc	acctgggtgtc	420
cccaaggctc	gcatcctgat	cacagacggg	aagtcccagg	acctgggtgga	cacagctgcc	480
caaaggctga	aggggcaggg	ggtcaagcta	tttgctgtgg	ggatcaagaa	tgctgaccct	540
gaggagctga	agcgagttgc	ctcacagccc	accagtgact	tcttcttctt	cgtaaatgac	600
ttcagcatct	tgaggacact	actgccccct	gtttcccggg	gagtgtgcac	gactgctggg	660
ggcgtgcctg	tgacccgacc	tccggatgac	tcgacctctg	ctccacgaga	cctgggtgctg	720
tctgagccaa	gcagccaatc	cttgagagta	cagtggacag	cggccagtgg	ccctgtgact	780
ggctacaagg	tccagtacac	tcctctgacg	gggctggggc	agccactgcc	gagtgcgagg	840
caggaggtga	acgtcccagc	tggtagagacc	agtgtgcggc	tcgggggtct	ccggccactg	900
accgagtacc	aagtgactgt	gattgccctc	tacgccaaca	gcatcgggga	ggctgtgagc	960
gggacagctc	ggaccactgc	cctagaaggg	ccggaactga	ccatccagaa	taccacagcc	1020
cacagcctcc	tgggtggcctg	gcggagtgtg	ccagggtgcca	ctggctaccg	tgtgacatgg	1080
cgggtcctca	gtggtggggc	cacacagcag	caggagctgg	gccctgggca	gggttcagtg	1140
ttgctgcgtg	acttggagcc	tggcacggac	tatgaggtga	ccgtgagcac	cctatttggc	1200
cgcagtgtgg	ggcccgccac	ttccctgatg	gctcgcactg	acgcttctgt	tgagcagacc	1260
ctgcgcccgg	tcatcctggg	ccccacatcc	atcctccttt	cctggaactt	ggtgcctgag	1320
gcccgtggct	accggttggg	atggcggcgt	gagactggct	tggagccacc	gcagaagggtg	1380
gtactgccct	ctgatgtgac	ccgctaccag	ttggatgggc	tgacagccggg	cactgagtac	1440
cgcctcacac	tctacactct	gctggagggc	cacgaggtgg	ccacccctgc	aaccgtgggt	1500
cccactggac	cagagctgcc	tgtgagccct	gtaacagacc	tgcaagccac	cgagctgccc	1560
gggcagcggg	tgcgagtgtc	ctggagccca	gtccctggtg	ccaccagta	ccgcatcatt	1620
gtgcgcagca	cccagggggg	tgagcggacc	ctgggtgctt	ctgggagtca	gacagcattc	1680
gacttggatg	acgttcaggc	tgggcttagc	tacactgtgc	gggtgtctgc	tcgagtgggt	1740
ccccgtgagg	gcagtgccag	tgtcctcact	gtccgccggg	agccggaaac	tccacttgct	1800
gttccagggc	tgcgggttgt	ggtgtcagat	gcaacgcgag	tgagggtggc	ctggggaccc	1860
gtccctggag	ccagtggatt	tcggattagc	tggagcacag	gcagtgggtc	ggagtccagc	1920
cagacactgc	ccccagactc	tactgccaca	gacatcacag	ggctgcagcc	tggaaaccacc	1980
taccaggtgg	ctgtgtcggg	actgcgaggc	agagaggagg	gccctgctgc	agtcatcgtg	2040
gctcgaacgg	accactggg	cccagtgagg	acgggccatg	tgactcaggc	cagcagctca	2100
tctgtcacca	ttacctggac	cagggttcct	ggcgccacag	gatacagggt	ttcctggcac	2160
tcagcccacg	gcccagagaa	atcccagttg	gtttctgggg	aggccacggt	ggctgagctg	2220
gatggactgg	agccagatac	tgagtatacg	gtgcatgtga	gggcccattg	ggctggcgtg	2280
gatgggcccc	ctgcctctgt	ggttgtgagg	actgccccctg	agcctgtggg	tcgtgtgtcg	2340
aggctgcaga	tcctcaatgc	ttccagcgac	gttctacgga	tcacctgggt	aggggtcact	2400
ggagccacag	cttacagact	ggcctggggc	cggagtgaag	gcggccccat	gaggcaccag	2460
atactcccag	gaaacacaga	ctctgcagag	atccgggggtc	tcgaagggtg	agtcagctac	2520
tcagtgcgag	tgactgcact	tgtcgggggac	cgcgagggca	cacctgtctc	cattgttgtc	2580
actacgccgc	ctgaggctcc	gccagccctg	gggacgcttc	acgtgggtgca	gcgcgggggag	2640
cactcgctga	ggctgcgctg	ggagccgggtg	cccagagcgc	agggttcct	tctgactggt	2700
caacctgagg	gtggccagga	acagtcccgg	gtcctggggc	ccgagctcag	cagctatcac	2760
ctggacgggc	tggagccagc	gacacagtac	cgctgaggc	tgagtgtcct	agggccagct	2820
ggagaagggc	cctctgcaga	ggtgactgcg	cgactgagt	cacctcgtgt	tccaagcatt	2880
gaactacgtg	tgggtggacac	ctcgatcgac	tcgggtgactt	tggcctggac	tccagtgtcc	2940
agggcattcca	gctacatcct	atcctggcgg	ccactcagag	gccctggcca	ggaagtgcct	3000

gggtccccgc	agacacttcc	agggatctca	agctcccagc	gggtgacagg	gctagagcct	3060
ggcgtctctt	acatcttctc	cctgacgcct	gtcctggatg	gtgtgcgggg	tcctgaggca	3120
tctgtcacac	agacgccagt	gtgccccgt	ggcctggcgg	atgtggtgtt	cctaccacat	3180
gccactcaag	acaatgctca	ccgtgcggag	gctacgagga	gggtcctgga	gcgtctggtg	3240
ttggcacttg	ggcctcttgg	gccacaggca	gttcagggtt	gcctgctgtc	ttacagtcac	3300
cggccctccc	cactgttccc	actgaatggc	tcccatgacc	ttggcattat	cttgcaaagg	3360
atccgtgaca	tgccctacat	ggacccaagt	gggaacaacc	tgggcacagc	cgtggtcaca	3420
gctcacagat	acatgttggc	accagatgct	cctggggcgc	gccagcacgt	accaggggtg	3480
atggttctgc	tagtggatga	acccttgaga	ggtgacatat	tcagcccat	ccgtgaggcc	3540
caggcttctg	ggcttaatgt	ggtgatgttg	ggaatggctg	gagcggaccc	agagcagctg	3600
cgctcgcttg	cgccgggtat	ggactctgtc	cagaccttct	tcgccgtgga	tgatgggcca	3660
agcctggacc	aggcagtcag	tggcttggcc	acagccctgt	gtcaggcatc	cttcactact	3720
cagccccggc	cagagccctg	cccagtgtat	tgtccaaagg	gccagaaggg	ggaacctgga	3780
gagatgggccc	tgagaggaca	agttgggcct	cctggcgacc	ctggcctccc	gggcaggacc	3840
ggtgtctccg	gccccagggg	gccccctgga	agtgccactg	ccaagggcga	gaggggcttc	3900
cctggagcag	atgggcgtcc	aggcagccct	ggccgcgccg	ggaatcctgg	gacctctgga	3960
gccccctggc	taaaagggtc	tccagggttg	cctggccctc	gtggggaccc	gggagagcga	4020
ggacctcgag	gccccaaagg	ggagccgggg	gctcccggac	aagtcacagg	aggtgaagga	4080
cctgggcttc	ctgggcggaa	aggggacctt	ggaccatcgg	gccccctgg	acctcgtgga	4140
ccactggggg	acccaggacc	ccgtggcccc	ccagggcttc	ctggaacagc	catgaagggt	4200
gacaaaggcg	atcgtgggga	gcggggctcc	cctggaccag	gtgaagggtg	cattgctcct	4260
ggggagcctg	ggctgccggg	tcttcccggg	agccctggac	cccaaggccc	cgttggcccc	4320
cctggaaaaga	aaggagaaaa	aggtgactct	gaggatggag	ctccaggcct	cccaggacaa	4380
cctgggtctc	cgggtgagca	gggcccacgg	ggacctcctg	gagctatttg	ccccaaagg	4440
gaccggggct	ttccaggggc	cctgggtgag	gctggagaga	agggcgaacg	tggaccccc	4500
ggcccagcgg	gatcccgggg	gctgccaggg	gttgctggac	gtcctggagc	caagggtcct	4560
gaagggccac	caggacccac	tggccgcca	ggagagaagg	gggagcctgg	tcgccctggg	4620
gacctgcag	tgggtgggac	tgctgttgct	ggacccaaag	gagaaaagg	agatgtgggg	4680
cccgtggggc	ccagaggagc	taccggagtc	caaggggaac	ggggcccacc	cggcttggtt	4740
cttcctggag	accctggccc	caagggagac	cctggagacc	ggggtcccat	tggccttact	4800
ggcagagcag	gacccccagg	tgactcaggg	cctcctggag	agaagggaga	ccctgggcgg	4860
cctggccccc	caggacctgt	tggccccga	ggacgagatg	gtgaaagtgg	agagaaagg	4920
gacgagggtc	ctccgggtga	cccgggtttg	cctggaaaag	caggcgagcg	tggccttcgg	4980
ggggcacctg	gagttcgggg	gcctgtgggt	gaaaagggag	accagggaga	tcctggagag	5040
gatggacgaa	atggcagccc	tggatcatct	ggacccaagg	gtgaccgtgg	ggagccgggt	5100
ccccaggac	ccccgggacg	gctggtagac	acaggacctg	gagccagaga	gaagggagag	5160
cctggggacc	gcggacaaga	gggtcctcga	gggcccagg	gtgatcctgg	cctccctgga	5220
gccccctggg	aaaggggcat	tgaagggttt	cggggacccc	caggcccaca	gggggaccca	5280
ggtgtccgag	gcccagcagg	agaaaaagg	gaccggggtc	cccctgggct	ggatggccgg	5340
agcggactgg	atgggaaaac	aggagccgct	gggcctctg	ggccgaatgg	tgctgcaggc	5400
aaagctgggg	acccaggggag	agacgggctt	ccaggcctcc	gtggagaaca	gggcctccct	5460
ggccccctct	gtccccctgg	attaccggga	aagccaggcg	aggatggcaa	acctggcctg	5520
aatggaaaaa	acggagaacc	tggggacctt	ggagaagacg	ggaggaaggg	agagaaagga	5580
gattcaggcg	cctctggggg	agaaggctgt	gatggcccca	agggtgagcg	tggagctcct	5640
ggtatccttg	gaccccaggg	gcctccaggc	ctcccagggc	cagtgggccc	tcctggccag	5700
ggttttcctg	gtgtcccagg	aggcacgggc	cccaagggtg	accgtgggga	gactggatcc	5760
aaaggggagc	agggcctccc	tggagagcgt	ggcctgcgag	gagagcctgg	aagtgtgccg	5820
aatgtggatc	ggttgctgga	aactgctggc	atcaaggcat	ctgccctgcg	ggagatcgtg	5880
gagacctggg	atgagagctc	tggtagcttc	ctgcctgtgc	ccgaacggcg	tcgaggcccc	5940
aagggggact	caggcgaaca	gggcccccca	ggcaaggagg	gccccatcgg	ctttcctgga	6000

gaacgcggggc	tgaagggcga	ccgtggagac	cctggccctc	agggggccacc	tggctctggcc	6060
cttgggggaga	ggggccccc	cgggccttcc	ggccttgccg	gggagcctgg	aaagcctggt	6120
attccccgggc	tcccaggcag	ggctgggggt	gtgggagagg	caggaaaggcc	aggagagagg	6180
ggagaacggg	gagagaaaagg	agaacgtgga	gaacaggggca	gagatggccc	tcctggactc	6240
cctggaacccc	ctgggcccc	cggaccccc	ggccccaagg	tgtctgtgga	tgagccagggt	6300
cctggactct	ctggagaaca	gggaccccc	ggactcaagg	gtgctaagg	ggagccgggc	6360
agcaatggtg	accaaggtcc	caaaggagac	aggggtgtgc	caggcatcaa	aggagaccgg	6420
ggagagcctg	gaccgagggg	tcaggacggc	aacccgggtc	taccaggaga	gcgtggtatg	6480
gctgggcctg	aagggaagcc	gggtctgcag	ggtccaagag	gccccctgg	cccagtgggt	6540
ggtcatggag	accctggacc	acctggtgcc	ccgggtcttg	ctggccctgc	aggaccccaa	6600
ggaccttctg	gcctgaaggg	ggagcctgga	gagacaggac	ctccaggacg	gggcctgact	6660
ggacctactg	gagctgtggg	acttcctgga	cccccggcc	cttcaggcct	tgtgggtcca	6720
caggggtctc	caggtttgcc	tggacaagt	ggggagacag	ggaagccggg	agccccagggt	6780
cgagatggtg	ccagtggaaa	agatggagac	agagggagcc	ctggtgtgcc	agggtcacca	6840
ggtctgcctg	gccctgtcgg	acctaaagga	gaacctggcc	ccacgggggc	ccctggacag	6900
gctgtggtcg	ggctccctgg	agcaaaggga	gagaaggag	cccctggagg	ccttgctgga	6960
gacctggtgg	gtgagccggg	agccaaaagg	gaccgaggac	tgccagggcc	gcgaggcgag	7020
aagggtgaag	ctggccgtgc	aggggagccc	ggagaccctg	gggaagatgg	tcagaaaagg	7080
gctccaggac	ccaaagggtt	caagggtgac	ccaggagtcg	gggtcccggg	ctccccctggg	7140
cctcctggcc	ctccagggtg	gaaggagat	ctgggcctcc	ctggcctgcc	cgggtgctcct	7200
ggtgttgttg	ggttcccggg	tcagacaggc	cctcgaggag	agatgggtca	gccaggccct	7260
agtggagagc	ggggtctggc	aggccccca	gggagagaag	gaatcccagg	accctggggg	7320
ccacctggac	caccggggtc	agtgggacca	cctggggcct	ctggactcaa	aggagacaag	7380
ggagaccctg	gagtagggct	gcctgggccc	cgaggcgagc	gtggggagcc	aggcatccgg	7440
ggtgaagatg	gccgccccgg	ccaggaggga	ccccgaggac	tcacggggcc	ccctggcagc	7500
aggggagagc	gtggggagaa	gggtgatgtt	gggagtgcag	gactaaagg	tgacaaggga	7560
gactcagctg	tgatcctggg	gcctccaggc	ccacgggggtg	ccaaggggga	catgggtgaa	7620
cgagggcctc	ggggccttga	tggtgacaaa	ggacctcggg	gagacaatgg	ggaccctggt	7680
gacaagggca	gcaagggaga	gcctggtgac	aagggtcag	ccgggttgcc	aggactgcgt	7740
ggactcctgg	gaccccagg	tcaacctggt	gcagcaggga	tccctggtga	cccgggatcc	7800
ccaggaaaagg	atggagtgcc	tggtatccga	ggagaaaaag	gagatgttgg	cttcatgggt	7860
ccccggggcc	tcaagggtga	acggggagt	aagggagcct	gtggccttga	tggagagaag	7920
ggagacaagg	gagaagctgg	tccccaggc	cgccccgggc	tggcaggaca	caaaggagag	7980
atgggggagc	ctggtgtgcc	gggccagtcg	ggggcccctg	gcaaggagg	cctgatcggt	8040
ccaagggtg	accgaggctt	tgacgggcag	ccaggcccca	agggtgacca	gggcgagaaa	8100
ggggagcggg	gaaccccagg	aattgggggc	ttccaggcc	ccagtggaaa	tgatggctct	8160
gctggtcccc	cagggccacc	tggcagtgtt	ggtcccagag	gccccgaagg	acttcagggc	8220
cagaagggtg	agcgagggtc	ccccggagag	agagtgggtg	gggctcctgg	ggtccctgga	8280
gctcctggcg	agagagggga	gcaggggcgg	ccagggcctg	ccggtcctcg	aggcgagaag	8340
ggagaagctg	cactgacgga	ggatgacatc	cggggctttg	tgcgccaaga	gatgagtcag	8400
cactgtgcct	gccaggggca	gttcatcgca	tctggatcac	gaccctccc	tagttatgct	8460
gcagacactg	ccggctccca	gctccatgct	gtgcctgtgc	tccgcgtctc	tcatgcagag	8520
gaggaaagagc	gggtaccccc	tgaggatgat	gagtactctg	aatactccga	gtattctgtg	8580
gaggagtacc	aggaccctga	agctccttgg	gatagtgatg	accctgttc	cctgccactg	8640
gatgagggct	cctgcactgc	ctacaccctg	cgctggtacc	atcgggctgt	gacaggcagc	8700
acagaggcct	gtcacccctt	tgtctatggt	ggctgtggag	ggaatgccaa	ccgttttggg	8760
accctgtagg	cctgcgagcg	ccgctgcccc	ccccgggtgg	tccagagcca	ggggacagggt	8820
actgcccagg	acggaagcgg	acagtgtact	aattatgctc	tcttgaaatt	ggctggagat	8880
gttgagagca	accctggacc	tacctcctcg	gggcctggac	cccggttcct	gctgctgctg	8940
ccgctgctgc	tgccccctgc	ggcctcagcc	tccgaccggc	cccggggccg	agaccgggtc	9000

```

aaccagaga agctgctggt gatcactgtg gccacagctg aaaccgaggg gtacctgcgt 9060
ttcctgcgct ctgcgaggtt cttcaactac actgtgcgga ccctgggcct gggagaggag 9120
tggcgagggg gtgatgtggc tcgaacagtt ggtggaggac agaagggtccg gtggttaaag 9180
aaggaaatgg agaaatacgc tgaccgggag gatatgatca tcatgtttgt ggatagctac 9240
gacgtgattc tggccggcag cccacagag ctgctgaaga agttcgtcca gagtggcagc 9300
cgctgtctt tctctgcaga gagcttctgc tggcccaggt gggggctggc ggagcagtac 9360
cctgaggtgg gcacggggaa gcgcttcctc aattctggtg gattcatcgg ttttgccacc 9420
accatccacc aaatcgtgcg ccagtgggag tacaaggatg atgacgacga ccagctgttc 9480
tacacacggc tctacctgga cccaggactg agggagaaac tcagccttaa tctggatcat 9540
aagtctcggg tctttcagaa cctcaacggg gctttagatg aagtggtttt aaagtttgat 9600
cggaaccgtg tgcgtatccg gaacgtggcc tacgacacgc tccccattgt ggtccatgga 9660
aacggtccca ctaagctgca gctcaactac ctgggaaact acgtcccaa tggctggact 9720
cctgagggag gctgtggctt ctgcaaccag gaccggagga cactcccggg ggggcagcct 9780
ccccccggg tgtttctggc cgtgtttgtg gaacagccta ctccgtttct gcccgccttc 9840
ctgcagcggc tgctactcct ggactatccc cccgacaggg tcaccctttt cctgcacaac 9900
aacgaggtct tccatgaacc ccacatcgct gactcctggc cgcagctcca ggaccacttc 9960
tcagctgtga agctcgtggg gccggaggag gctctgagcc caggcgaggc cagggacatg 10020
gccatggacc tgtgtcggca ggaccccag tgtgagttct acttcagcct ggacgccgac 10080
gctgtcctca ccaacctgca gacctgcgt atcctcattg aggagaacag gaagggtgatc 10140
gccccatgc tgtcccgcga cggcaagctg tgggtccact tctggggcgc cctgagcccc 10200
gatgagtact acgcccgtc cgaggactac gtggagctgg tgcagcggaa gcgagtgggt 10260
gtgtggaatg taccatacat ctcccaggcc tatgtgatcc ggggtgatac cctgcggatg 10320
gagctgcccc agagggatgt gttctcgggc agtgacacag acccggacat ggcttctgt 10380
aagagctttc gagacaaggg catcttcctc catctgagca atcagcatga atttgcccg 10440
ctcctggcca cttccagata cgacacggag cacctgcacc ccgacctctg gcagatcttc 10500
gacaaccccc tcgactggaa ggagcagtac atccacgaga actacagccg ggccctggaa 10560
ggggaaggaa tcgtggagca gccatgcccg gacgtgtact ggttcccact gctgtcagaa 10620
caaatgtgtg atgagctggt ggcagagatg gagcactacg gccagtggc aggcggcccg 10680
catgaggatt caaggctggc tggaggctac gagaatgtgc ccaccgtgga catccacatg 10740
aagcaggtgg ggtacgagga ccagtggctg cagctgctgc ggacgtatgt gggcccatg 10800
accgagagcc tgtttcccgg ttaccacacc aaggcgcggg cggtgatgaa ctttgtggtt 10860
cgctaccggc cagacgagca gccgtctctg cgccacacc acgactcatc caccttcacc 10920
ctcaacgttg ccctcaacca caagggcctg gactatgagg gaggtggctg ccgcttcctg 10980
cgctacgact gtgtgatctc ctccccgagg aagggtggg cactcctgca ccccgccgc 11040
ctcaccact accacagggg gctgccaacg acctggggca cagctacat catggtgtcc 11100
tttgtcgacc cctga 11115

```

<210> 22

<211> 3704

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 22

```

Met Thr Leu Arg Leu Leu Val Ala Ala Leu Cys Ala Gly Ile Leu Ala
 1             5             10             15
Glu Ala Pro Arg Val Arg Ala Gln His Arg Glu Arg Val Thr Cys Thr
          20             25             30

```

Arg	Leu	Tyr	Ala	Ala	Asp	Ile	Val	Phe	Leu	Leu	Asp	Gly	Ser	Ser	Ser
	35						40					45			
Ile	Gly	Arg	Ser	Asn	Phe	Arg	Glu	Val	Arg	Ser	Phe	Leu	Glu	Gly	Leu
	50					55					60				
Val	Leu	Pro	Phe	Ser	Gly	Ala	Ala	Ser	Ala	Gln	Gly	Val	Arg	Phe	Ala
65					70					75					80
Thr	Val	Gln	Tyr	Ser	Asp	Asp	Pro	Arg	Thr	Glu	Phe	Gly	Leu	Asp	Ala
				85					90					95	
Leu	Gly	Ser	Gly	Gly	Asp	Val	Ile	Arg	Ala	Ile	Arg	Glu	Leu	Ser	Tyr
			100					105					110		
Lys	Gly	Gly	Asn	Thr	Arg	Thr	Gly	Ala	Ala	Ile	Leu	His	Val	Ala	Asp
			115				120					125			
His	Val	Phe	Leu	Pro	Gln	Leu	Ala	Arg	Pro	Gly	Val	Pro	Lys	Val	Cys
	130						135				140				
Ile	Leu	Ile	Thr	Asp	Gly	Lys	Ser	Gln	Asp	Leu	Val	Asp	Thr	Ala	Ala
145					150					155					160
Gln	Arg	Leu	Lys	Gly	Gln	Gly	Val	Lys	Leu	Phe	Ala	Val	Gly	Ile	Lys
				165					170					175	
Asn	Ala	Asp	Pro	Glu	Glu	Leu	Lys	Arg	Val	Ala	Ser	Gln	Pro	Thr	Ser
			180					185					190		
Asp	Phe	Phe	Phe	Phe	Val	Asn	Asp	Phe	Ser	Ile	Leu	Arg	Thr	Leu	Leu
	195						200					205			
Pro	Leu	Val	Ser	Arg	Arg	Val	Cys	Thr	Thr	Ala	Gly	Gly	Val	Pro	Val
	210					215					220				
Thr	Arg	Pro	Pro	Asp	Asp	Ser	Thr	Ser	Ala	Pro	Arg	Asp	Leu	Val	Leu
225					230					235					240
Ser	Glu	Pro	Ser	Ser	Gln	Ser	Leu	Arg	Val	Gln	Trp	Thr	Ala	Ala	Ser
				245					250					255	
Gly	Pro	Val	Thr	Gly	Tyr	Lys	Val	Gln	Tyr	Thr	Pro	Leu	Thr	Gly	Leu
			260					265					270		
Gly	Gln	Pro	Leu	Pro	Ser	Glu	Arg	Gln	Glu	Val	Asn	Val	Pro	Ala	Gly
		275					280					285			
Glu	Thr	Ser	Val	Arg	Leu	Arg	Gly	Leu	Arg	Pro	Leu	Thr	Glu	Tyr	Gln
	290					295					300				
Val	Thr	Val	Ile	Ala	Leu	Tyr	Ala	Asn	Ser	Ile	Gly	Glu	Ala	Val	Ser
305					310					315					320
Gly	Thr	Ala	Arg	Thr	Thr	Ala	Leu	Glu	Gly	Pro	Glu	Leu	Thr	Ile	Gln
				325					330					335	
Asn	Thr	Thr	Ala	His	Ser	Leu	Leu	Val	Ala	Trp	Arg	Ser	Val	Pro	Gly
			340					345					350		
Ala	Thr	Gly	Tyr	Arg	Val	Thr	Trp	Arg	Val	Leu	Ser	Gly	Gly	Pro	Thr
		355					360					365			
Gln	Gln	Gln	Glu	Leu	Gly	Pro	Gly	Gln	Gly	Ser	Val	Leu	Leu	Arg	Asp
	370					375					380				
Leu	Glu	Pro	Gly	Thr	Asp	Tyr	Glu	Val	Thr	Val	Ser	Thr	Leu	Phe	Gly
385					390					395					400
Arg	Ser	Val	Gly	Pro	Ala	Thr	Ser	Leu	Met	Ala	Arg	Thr	Asp	Ala	Ser
				405					410					415	
Val	Glu	Gln	Thr	Leu	Arg	Pro	Val	Ile	Leu	Gly	Pro	Thr	Ser	Ile	Leu
			420					425					430		

Leu	Ser	Trp	Asn	Leu	Val	Pro	Glu	Ala	Arg	Gly	Tyr	Arg	Leu	Glu	Trp
		435					440				445				
Arg	Arg	Glu	Thr	Gly	Leu	Glu	Pro	Pro	Gln	Lys	Val	Val	Leu	Pro	Ser
	450					455				460					
Asp	Val	Thr	Arg	Tyr	Gln	Leu	Asp	Gly	Leu	Gln	Pro	Gly	Thr	Glu	Tyr
465				470						475					480
Arg	Leu	Thr	Leu	Tyr	Thr	Leu	Leu	Glu	Gly	His	Glu	Val	Ala	Thr	Pro
			485					490						495	
Ala	Thr	Val	Val	Pro	Thr	Gly	Pro	Glu	Leu	Pro	Val	Ser	Pro	Val	Thr
		500					505					510			
Asp	Leu	Gln	Ala	Thr	Glu	Leu	Pro	Gly	Gln	Arg	Val	Arg	Val	Ser	Trp
	515					520					525				
Ser	Pro	Val	Pro	Gly	Ala	Thr	Gln	Tyr	Arg	Ile	Ile	Val	Arg	Ser	Thr
	530				535					540					
Gln	Gly	Val	Glu	Arg	Thr	Leu	Val	Leu	Pro	Gly	Ser	Gln	Thr	Ala	Phe
545				550						555					560
Asp	Leu	Asp	Asp	Val	Gln	Ala	Gly	Leu	Ser	Tyr	Thr	Val	Arg	Val	Ser
			565					570						575	
Ala	Arg	Val	Gly	Pro	Arg	Glu	Gly	Ser	Ala	Ser	Val	Leu	Thr	Val	Arg
		580					585						590		
Arg	Glu	Pro	Glu	Thr	Pro	Leu	Ala	Val	Pro	Gly	Leu	Arg	Val	Val	Val
	595					600					605				
Ser	Asp	Ala	Thr	Arg	Val	Arg	Val	Ala	Trp	Gly	Pro	Val	Pro	Gly	Ala
	610				615					620					
Ser	Gly	Phe	Arg	Ile	Ser	Trp	Ser	Thr	Gly	Ser	Gly	Pro	Glu	Ser	Ser
625				630					635						640
Gln	Thr	Leu	Pro	Pro	Asp	Ser	Thr	Ala	Thr	Asp	Ile	Thr	Gly	Leu	Gln
			645					650					655		
Pro	Gly	Thr	Thr	Tyr	Gln	Val	Ala	Val	Ser	Val	Leu	Arg	Gly	Arg	Glu
		660				665							670		
Glu	Gly	Pro	Ala	Ala	Val	Ile	Val	Ala	Arg	Thr	Asp	Pro	Leu	Gly	Pro
	675					680					685				
Val	Arg	Thr	Val	His	Val	Thr	Gln	Ala	Ser	Ser	Ser	Ser	Val	Thr	Ile
	690				695						700				
Thr	Trp	Thr	Arg	Val	Pro	Gly	Ala	Thr	Gly	Tyr	Arg	Val	Ser	Trp	His
705				710					715						720
Ser	Ala	His	Gly	Pro	Glu	Lys	Ser	Gln	Leu	Val	Ser	Gly	Glu	Ala	Thr
			725					730					735		
Val	Ala	Glu	Leu	Asp	Gly	Leu	Glu	Pro	Asp	Thr	Glu	Tyr	Thr	Val	His
		740					745						750		
Val	Arg	Ala	His	Val	Ala	Gly	Val	Asp	Gly	Pro	Pro	Ala	Ser	Val	Val
	755					760						765			
Val	Arg	Thr	Ala	Pro	Glu	Pro	Val	Gly	Arg	Val	Ser	Arg	Leu	Gln	Ile
	770				775						780				
Leu	Asn	Ala	Ser	Ser	Asp	Val	Leu	Arg	Ile	Thr	Trp	Val	Gly	Val	Thr
785				790					795						800
Gly	Ala	Thr	Ala	Tyr	Arg	Leu	Ala	Trp	Gly	Arg	Ser	Glu	Gly	Gly	Pro
			805					810					815		
Met	Arg	His	Gln	Ile	Leu	Pro	Gly	Asn	Thr	Asp	Ser	Ala	Glu	Ile	Arg
		820					825					830			

Gly	Leu	Glu	Gly	Gly	Val	Ser	Tyr	Ser	Val	Arg	Val	Thr	Ala	Leu	Val	835	840	845
Gly	Asp	Arg	Glu	Gly	Thr	Pro	Val	Ser	Ile	Val	Val	Thr	Thr	Pro	Pro	850	855	860
Glu	Ala	Pro	Pro	Ala	Leu	Gly	Thr	Leu	His	Val	Val	Gln	Arg	Gly	Glu	865	870	875
His	Ser	Leu	Arg	Leu	Arg	Trp	Glu	Pro	Val	Pro	Arg	Ala	Gln	Gly	Phe	885	890	895
Leu	Leu	His	Trp	Gln	Pro	Glu	Gly	Gly	Gln	Glu	Gln	Ser	Arg	Val	Leu	900	905	910
Gly	Pro	Glu	Leu	Ser	Ser	Tyr	His	Leu	Asp	Gly	Leu	Glu	Pro	Ala	Thr	915	920	925
Gln	Tyr	Arg	Val	Arg	Leu	Ser	Val	Leu	Gly	Pro	Ala	Gly	Glu	Gly	Pro	930	935	940
Ser	Ala	Glu	Val	Thr	Ala	Arg	Thr	Glu	Ser	Pro	Arg	Val	Pro	Ser	Ile	945	950	955
Glu	Leu	Arg	Val	Val	Asp	Thr	Ser	Ile	Asp	Ser	Val	Thr	Leu	Ala	Trp	965	970	975
Thr	Pro	Val	Ser	Arg	Ala	Ser	Ser	Tyr	Ile	Leu	Ser	Trp	Arg	Pro	Leu	980	985	990
Arg	Gly	Pro	Gly	Gln	Glu	Val	Pro	Gly	Ser	Pro	Gln	Thr	Leu	Pro	Gly	995	1000	1005
Ile	Ser	Ser	Ser	Gln	Arg	Val	Thr	Gly	Leu	Glu	Pro	Gly	Val	Ser	Tyr	1010	1015	1020
Ile	Phe	Ser	Leu	Thr	Pro	Val	Leu	Asp	Gly	Val	Arg	Gly	Pro	Glu	Ala	1025	1030	1035
Ser	Val	Thr	Gln	Thr	Pro	Val	Cys	Pro	Arg	Gly	Leu	Ala	Asp	Val	Val	1045	1050	1055
Phe	Leu	Pro	His	Ala	Thr	Gln	Asp	Asn	Ala	His	Arg	Ala	Glu	Ala	Thr	1060	1065	1070
Arg	Arg	Val	Leu	Glu	Arg	Leu	Val	Leu	Ala	Leu	Gly	Pro	Leu	Gly	Pro	1075	1080	1085
Gln	Ala	Val	Gln	Val	Gly	Leu	Leu	Ser	Tyr	Ser	His	Arg	Pro	Ser	Pro	1090	1095	1100
Leu	Phe	Pro	Leu	Asn	Gly	Ser	His	Asp	Leu	Gly	Ile	Ile	Leu	Gln	Arg	1105	1110	1115
Ile	Arg	Asp	Met	Pro	Tyr	Met	Asp	Pro	Ser	Gly	Asn	Asn	Leu	Gly	Thr	1125	1130	1135
Ala	Val	Val	Thr	Ala	His	Arg	Tyr	Met	Leu	Ala	Pro	Asp	Ala	Pro	Gly	1140	1145	1150
Arg	Arg	Gln	His	Val	Pro	Gly	Val	Met	Val	Leu	Leu	Val	Asp	Glu	Pro	1155	1160	1165
Leu	Arg	Gly	Asp	Ile	Phe	Ser	Pro	Ile	Arg	Glu	Ala	Gln	Ala	Ser	Gly	1170	1175	1180
Leu	Asn	Val	Val	Met	Leu	Gly	Met	Ala	Gly	Ala	Asp	Pro	Glu	Gln	Leu	1185	1190	1195
Arg	Arg	Leu	Ala	Pro	Gly	Met	Asp	Ser	Val	Gln	Thr	Phe	Phe	Ala	Val	1205	1210	1215
Asp	Asp	Gly	Pro	Ser	Leu	Asp	Gln	Ala	Val	Ser	Gly	Leu	Ala	Thr	Ala	1220	1225	1230

Leu	Cys	Gln	Ala	Ser	Phe	Thr	Thr	Gln	Pro	Arg	Pro	Glu	Pro	Cys	Pro	1235	1240	1245	
Val	Tyr	Cys	Pro	Lys	Gly	Gln	Lys	Gly	Glu	Pro	Gly	Glu	Met	Gly	Leu	1250	1255	1260	
Arg	Gly	Gln	Val	Gly	Pro	Pro	Gly	Asp	Pro	Gly	Leu	Pro	Gly	Arg	Thr	1265	1270	1275	1280
Gly	Ala	Pro	Gly	Pro	Gln	Gly	Pro	Pro	Gly	Ser	Ala	Thr	Ala	Lys	Gly	1285	1290	1295	
Glu	Arg	Gly	Phe	Pro	Gly	Ala	Asp	Gly	Arg	Pro	Gly	Ser	Pro	Gly	Arg	1300	1305	1310	
Ala	Gly	Asn	Pro	Gly	Thr	Pro	Gly	Ala	Pro	Gly	Leu	Lys	Gly	Ser	Pro	1315	1320	1325	
Gly	Leu	Pro	Gly	Pro	Arg	Gly	Asp	Pro	Gly	Glu	Arg	Gly	Pro	Arg	Gly	1330	1335	1340	
Pro	Lys	Gly	Glu	Pro	Gly	Ala	Pro	Gly	Gln	Val	Ile	Gly	Gly	Glu	Gly	1345	1350	1355	1360
Pro	Gly	Leu	Pro	Gly	Arg	Lys	Gly	Asp	Pro	Gly	Pro	Ser	Gly	Pro	Pro	1365	1370	1375	
Gly	Pro	Arg	Gly	Pro	Leu	Gly	Asp	Pro	Gly	Pro	Arg	Gly	Pro	Pro	Gly	1380	1385	1390	
Leu	Pro	Gly	Thr	Ala	Met	Lys	Gly	Asp	Lys	Gly	Asp	Arg	Gly	Glu	Arg	1395	1400	1405	
Gly	Pro	Pro	Gly	Pro	Gly	Glu	Gly	Gly	Ile	Ala	Pro	Gly	Glu	Pro	Gly	1410	1415	1420	
Leu	Pro	Gly	Leu	Pro	Gly	Ser	Pro	Gly	Pro	Gln	Gly	Pro	Val	Gly	Pro	1425	1430	1435	1440
Pro	Gly	Lys	Lys	Gly	Glu	Lys	Gly	Asp	Ser	Glu	Asp	Gly	Ala	Pro	Gly	1445	1450	1455	
Leu	Pro	Gly	Gln	Pro	Gly	Ser	Pro	Gly	Glu	Gln	Gly	Pro	Arg	Gly	Pro	1460	1465	1470	
Pro	Gly	Ala	Ile	Gly	Pro	Lys	Gly	Asp	Arg	Gly	Phe	Pro	Gly	Pro	Leu	1475	1480	1485	
Gly	Glu	Ala	Gly	Glu	Lys	Gly	Glu	Arg	Gly	Pro	Pro	Gly	Pro	Ala	Gly	1490	1495	1500	
Ser	Arg	Gly	Leu	Pro	Gly	Val	Ala	Gly	Arg	Pro	Gly	Ala	Lys	Gly	Pro	1505	1510	1515	1520
Glu	Gly	Pro	Pro	Gly	Pro	Thr	Gly	Arg	Gln	Gly	Glu	Lys	Gly	Glu	Pro	1525	1530	1535	
Gly	Arg	Pro	Gly	Asp	Pro	Ala	Val	Val	Gly	Pro	Ala	Val	Ala	Gly	Pro	1540	1545	1550	
Lys	Gly	Glu	Lys	Gly	Asp	Val	Gly	Pro	Ala	Gly	Pro	Arg	Gly	Ala	Thr	1555	1560	1565	
Gly	Val	Gln	Gly	Glu	Arg	Gly	Pro	Pro	Gly	Leu	Val	Leu	Pro	Gly	Asp	1570	1575	1580	
Pro	Gly	Pro	Lys	Gly	Asp	Pro	Gly	Asp	Arg	Gly	Pro	Ile	Gly	Leu	Thr	1585	1590	1595	1600
Gly	Arg	Ala	Gly	Pro	Pro	Gly	Asp	Ser	Gly	Pro	Pro	Gly	Glu	Lys	Gly	1605	1610	1615	
Asp	Pro	Gly	Arg	Pro	Gly	Pro	Pro	Gly	Pro	Val	Gly	Pro	Arg	Gly	Arg	1620	1625	1630	

Asp	Gly	Glu	Val	Gly	Glu	Lys	Gly	Asp	Glu	Gly	Pro	Pro	Gly	Asp	Pro	1635	1640	1645	
Gly	Leu	Pro	Gly	Lys	Ala	Gly	Glu	Arg	Gly	Leu	Arg	Gly	Ala	Pro	Gly	1650	1655	1660	
Val	Arg	Gly	Pro	Val	Gly	Glu	Lys	Gly	Asp	Gln	Gly	Asp	Pro	Gly	Glu	1665	1670	1675	1680
Asp	Gly	Arg	Asn	Gly	Ser	Pro	Gly	Ser	Ser	Gly	Pro	Lys	Gly	Asp	Arg	1685	1690	1695	
Gly	Glu	Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Arg	Leu	Val	Asp	Thr	Gly	1700	1705	1710	
Pro	Gly	Ala	Arg	Glu	Lys	Gly	Glu	Pro	Gly	Asp	Arg	Gly	Gln	Glu	Gly	1715	1720	1725	
Pro	Arg	Gly	Pro	Lys	Gly	Asp	Pro	Gly	Leu	Pro	Gly	Ala	Pro	Gly	Glu	1730	1735	1740	
Arg	Gly	Ile	Glu	Gly	Phe	Arg	Gly	Pro	Pro	Gly	Pro	Gln	Gly	Asp	Pro	1745	1750	1755	1760
Gly	Val	Arg	Gly	Pro	Ala	Gly	Glu	Lys	Gly	Asp	Arg	Gly	Pro	Pro	Gly	1765	1770	1775	
Leu	Asp	Gly	Arg	Ser	Gly	Leu	Asp	Gly	Lys	Pro	Gly	Ala	Ala	Gly	Pro	1780	1785	1790	
Ser	Gly	Pro	Asn	Gly	Ala	Ala	Gly	Lys	Ala	Gly	Asp	Pro	Gly	Arg	Asp	1795	1800	1805	
Gly	Leu	Pro	Gly	Leu	Arg	Gly	Glu	Gln	Gly	Leu	Pro	Gly	Pro	Ser	Gly	1810	1815	1820	
Pro	Pro	Gly	Leu	Pro	Gly	Lys	Pro	Gly	Glu	Asp	Gly	Lys	Pro	Gly	Leu	1825	1830	1835	1840
Asn	Gly	Lys	Asn	Gly	Glu	Pro	Gly	Asp	Pro	Gly	Glu	Asp	Gly	Arg	Lys	1845	1850	1855	
Gly	Glu	Lys	Gly	Asp	Ser	Gly	Ala	Ser	Gly	Arg	Glu	Gly	Arg	Asp	Gly	1860	1865	1870	
Pro	Lys	Gly	Glu	Arg	Gly	Ala	Pro	Gly	Ile	Leu	Gly	Pro	Gln	Gly	Pro	1875	1880	1885	
Pro	Gly	Leu	Pro	Gly	Pro	Val	Gly	Pro	Pro	Gly	Gln	Gly	Phe	Pro	Gly	1890	1895	1900	
Val	Pro	Gly	Gly	Thr	Gly	Pro	Lys	Gly	Asp	Arg	Gly	Glu	Thr	Gly	Ser	1905	1910	1915	1920
Lys	Gly	Glu	Gln	Gly	Leu	Pro	Gly	Glu	Arg	Gly	Leu	Arg	Gly	Glu	Pro	1925	1930	1935	
Gly	Ser	Val	Pro	Asn	Val	Asp	Arg	Leu	Leu	Glu	Thr	Ala	Gly	Ile	Lys	1940	1945	1950	
Ala	Ser	Ala	Leu	Arg	Glu	Ile	Val	Glu	Thr	Trp	Asp	Glu	Ser	Ser	Gly	1955	1960	1965	
Ser	Phe	Leu	Pro	Val	Pro	Glu	Arg	Arg	Arg	Gly	Pro	Lys	Gly	Asp	Ser	1970	1975	1980	
Gly	Glu	Gln	Gly	Pro	Pro	Gly	Lys	Glu	Gly	Pro	Ile	Gly	Phe	Pro	Gly	1985	1990	1995	2000
Glu	Arg	Gly	Leu	Lys	Gly	Asp	Arg	Gly	Asp	Pro	Gly	Pro	Gln	Gly	Pro	2005	2010	2015	
Pro	Gly	Leu	Ala	Leu	Gly	Glu	Arg	Gly	Pro	Pro	Gly	Pro	Ser	Gly	Leu	2020	2025	2030	

Ala	Gly	Glu	Pro	Gly	Lys	Pro	Gly	Ile	Pro	Gly	Leu	Pro	Gly	Arg	Ala
		2035						2040						2045	
Gly	Gly	Val	Gly	Glu	Ala	Gly	Arg	Pro	Gly	Glu	Arg	Gly	Glu	Arg	Gly
		2050					2055						2060		
Glu	Lys	Gly	Glu	Arg	Gly	Glu	Gln	Gly	Arg	Asp	Gly	Pro	Pro	Gly	Leu
2065					2070					2075					2080
Pro	Gly	Thr	Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Pro	Lys	Val	Ser	Val
				2085					2090						2095
Asp	Glu	Pro	Gly	Pro	Gly	Leu	Ser	Gly	Glu	Gln	Gly	Pro	Pro	Gly	Leu
			2100					2105						2110	
Lys	Gly	Ala	Lys	Gly	Glu	Pro	Gly	Ser	Asn	Gly	Asp	Gln	Gly	Pro	Lys
		2115					2120						2125		
Gly	Asp	Arg	Gly	Val	Pro	Gly	Ile	Lys	Gly	Asp	Arg	Gly	Glu	Pro	Gly
		2130					2135					2140			
Pro	Arg	Gly	Gln	Asp	Gly	Asn	Pro	Gly	Leu	Pro	Gly	Glu	Arg	Gly	Met
2145					2150					2155					2160
Ala	Gly	Pro	Glu	Gly	Lys	Pro	Gly	Leu	Gln	Gly	Pro	Arg	Gly	Pro	Pro
				2165					2170						2175
Gly	Pro	Val	Gly	Gly	His	Gly	Asp	Pro	Gly	Pro	Pro	Gly	Ala	Pro	Gly
			2180					2185						2190	
Leu	Ala	Gly	Pro	Ala	Gly	Pro	Gln	Gly	Pro	Ser	Gly	Leu	Lys	Gly	Glu
		2195					2200						2205		
Pro	Gly	Glu	Thr	Gly	Pro	Pro	Gly	Arg	Gly	Leu	Thr	Gly	Pro	Thr	Gly
		2210					2215					2220			
Ala	Val	Gly	Leu	Pro	Gly	Pro	Pro	Gly	Pro	Ser	Gly	Leu	Val	Gly	Pro
2225					2230					2235					2240
Gln	Gly	Ser	Pro	Gly	Leu	Pro	Gly	Gln	Val	Gly	Glu	Thr	Gly	Lys	Pro
				2245					2250						2255
Gly	Ala	Pro	Gly	Arg	Asp	Gly	Ala	Ser	Gly	Lys	Asp	Gly	Asp	Arg	Gly
			2260					2265						2270	
Ser	Pro	Gly	Val	Pro	Gly	Ser	Pro	Gly	Leu	Pro	Gly	Pro	Val	Gly	Pro
		2275					2280						2285		
Lys	Gly	Glu	Pro	Gly	Pro	Thr	Gly	Ala	Pro	Gly	Gln	Ala	Val	Val	Gly
		2290					2295					2300			
Leu	Pro	Gly	Ala	Lys	Gly	Glu	Lys	Gly	Ala	Pro	Gly	Gly	Leu	Ala	Gly
2305					2310					2315					2320
Asp	Leu	Val	Gly	Glu	Pro	Gly	Ala	Lys	Gly	Asp	Arg	Gly	Leu	Pro	Gly
				2325					2330						2335
Pro	Arg	Gly	Glu	Lys	Gly	Glu	Ala	Gly	Arg	Ala	Gly	Glu	Pro	Gly	Asp
			2340					2345						2350	
Pro	Gly	Glu	Asp	Gly	Gln	Lys	Gly	Ala	Pro	Gly	Pro	Lys	Gly	Phe	Lys
			2355					2360						2365	
Gly	Asp	Pro	Gly	Val	Gly	Val	Pro	Gly	Ser	Pro	Gly	Pro	Pro	Gly	Pro
		2370					2375					2380			
Pro	Gly	Val	Lys	Gly	Asp	Leu	Gly	Leu	Pro	Gly	Leu	Pro	Gly	Ala	Pro
2385					2390					2395					2400
Gly	Val	Val	Gly	Phe	Pro	Gly	Gln	Thr	Gly	Pro	Arg	Gly	Glu	Met	Gly
				2405					2410						2415
Gln	Pro	Gly	Pro	Ser	Gly	Glu	Arg	Gly	Leu	Ala	Gly	Pro	Pro	Gly	Arg
			2420					2425							2430

Glu Gly Ile Pro Gly Pro Leu Gly Pro Pro Gly Pro Pro Gly Ser Val		
2435	2440	2445
Gly Pro Pro Gly Ala Ser Gly Leu Lys Gly Asp Lys Gly Asp Pro Gly		
2450	2455	2460
Val Gly Leu Pro Gly Pro Arg Gly Glu Arg Gly Glu Pro Gly Ile Arg		
2465	2470	2475
Gly Glu Asp Gly Arg Pro Gly Gln Glu Gly Pro Arg Gly Leu Thr Gly		
2485	2490	2495
Pro Pro Gly Ser Arg Gly Glu Arg Gly Glu Lys Gly Asp Val Gly Ser		
2500	2505	2510
Ala Gly Leu Lys Gly Asp Lys Gly Asp Ser Ala Val Ile Leu Gly Pro		
2515	2520	2525
Pro Gly Pro Arg Gly Ala Lys Gly Asp Met Gly Glu Arg Gly Pro Arg		
2530	2535	2540
Gly Leu Asp Gly Asp Lys Gly Pro Arg Gly Asp Asn Gly Asp Pro Gly		
2545	2550	2555
Asp Lys Gly Ser Lys Gly Glu Pro Gly Asp Lys Gly Ser Ala Gly Leu		
2565	2570	2575
Pro Gly Leu Arg Gly Leu Leu Gly Pro Gln Gly Gln Pro Gly Ala Ala		
2580	2585	2590
Gly Ile Pro Gly Asp Pro Gly Ser Pro Gly Lys Asp Gly Val Pro Gly		
2595	2600	2605
Ile Arg Gly Glu Lys Gly Asp Val Gly Phe Met Gly Pro Arg Gly Leu		
2610	2615	2620
Lys Gly Glu Arg Gly Val Lys Gly Ala Cys Gly Leu Asp Gly Glu Lys		
2625	2630	2635
Gly Asp Lys Gly Glu Ala Gly Pro Pro Gly Arg Pro Gly Leu Ala Gly		
2645	2650	2655
His Lys Gly Glu Met Gly Glu Pro Gly Val Pro Gly Gln Ser Gly Ala		
2660	2665	2670
Pro Gly Lys Glu Gly Leu Ile Gly Pro Lys Gly Asp Arg Gly Phe Asp		
2675	2680	2685
Gly Gln Pro Gly Pro Lys Gly Asp Gln Gly Glu Lys Gly Glu Arg Gly		
2690	2695	2700
Thr Pro Gly Ile Gly Gly Phe Pro Gly Pro Ser Gly Asn Asp Gly Ser		
2705	2710	2715
Ala Gly Pro Pro Gly Pro Pro Gly Ser Val Gly Pro Arg Gly Pro Glu		
2725	2730	2735
Gly Leu Gln Gly Gln Lys Gly Glu Arg Gly Pro Pro Gly Glu Arg Val		
2740	2745	2750
Val Gly Ala Pro Gly Val Pro Gly Ala Pro Gly Glu Arg Gly Glu Gln		
2755	2760	2765
Gly Arg Pro Gly Pro Ala Gly Pro Arg Gly Glu Lys Gly Glu Ala Ala		
2770	2775	2780
Leu Thr Glu Asp Asp Ile Arg Gly Phe Val Arg Gln Glu Met Ser Gln		
2785	2790	2795
His Cys Ala Cys Gln Gly Gln Phe Ile Ala Ser Gly Ser Arg Pro Leu		
2805	2810	2815
Pro Ser Tyr Ala Ala Asp Thr Ala Gly Ser Gln Leu His Ala Val Pro		
2820	2825	2830

Val	Leu	Arg	Val	Ser	His	Ala	Glu	Glu	Glu	Glu	Arg	Val	Pro	Pro	Glu
	2835						2840					2845			
Asp	Asp	Glu	Tyr	Ser	Glu	Tyr	Ser	Glu	Tyr	Ser	Val	Glu	Glu	Tyr	Gln
	2850					2855					2860				
Asp	Pro	Glu	Ala	Pro	Trp	Asp	Ser	Asp	Asp	Pro	Cys	Ser	Leu	Pro	Leu
2865					2870					2875					2880
Asp	Glu	Gly	Ser	Cys	Thr	Ala	Tyr	Thr	Leu	Arg	Trp	Tyr	His	Arg	Ala
			2885						2890					2895	
Val	Thr	Gly	Ser	Thr	Glu	Ala	Cys	His	Pro	Phe	Val	Tyr	Gly	Gly	Cys
	2900						2905					2910			
Gly	Gly	Asn	Ala	Asn	Arg	Phe	Gly	Thr	Arg	Glu	Ala	Cys	Glu	Arg	Arg
	2915						2920					2925			
Cys	Pro	Pro	Arg	Val	Val	Gln	Ser	Gln	Gly	Thr	Gly	Thr	Ala	Gln	Asp
	2930					2935					2940				
Gly	Ser	Gly	Gln	Cys	Thr	Asn	Tyr	Ala	Leu	Leu	Lys	Leu	Ala	Gly	Asp
2945					2950				2955						2960
Val	Glu	Ser	Asn	Pro	Gly	Pro	Thr	Ser	Ser	Gly	Pro	Gly	Pro	Arg	Phe
			2965						2970					2975	
Leu	Leu	Leu	Leu	Pro	Leu	Leu	Leu	Pro	Pro	Ala	Ala	Ser	Ala	Ser	Asp
	2980							2985					2990		
Arg	Pro	Arg	Gly	Arg	Asp	Pro	Val	Asn	Pro	Glu	Lys	Leu	Leu	Val	Ile
	2995					3000						3005			
Thr	Val	Ala	Thr	Ala	Glu	Thr	Glu	Gly	Tyr	Leu	Arg	Phe	Leu	Arg	Ser
	3010				3015				3020						
Ala	Glu	Phe	Phe	Asn	Tyr	Thr	Val	Arg	Thr	Leu	Gly	Leu	Gly	Glu	Glu
3025					3030				3035					3040	
Trp	Arg	Gly	Gly	Asp	Val	Ala	Arg	Thr	Val	Gly	Gly	Gly	Gln	Lys	Val
			3045						3050				3055		
Arg	Trp	Leu	Lys	Lys	Glu	Met	Glu	Lys	Tyr	Ala	Asp	Arg	Glu	Asp	Met
	3060						3065					3070			
Ile	Ile	Met	Phe	Val	Asp	Ser	Tyr	Asp	Val	Ile	Leu	Ala	Gly	Ser	Pro
	3075					3080					3085				
Thr	Glu	Leu	Leu	Lys	Lys	Phe	Val	Gln	Ser	Gly	Ser	Arg	Leu	Leu	Phe
	3090				3095					3100					
Ser	Ala	Glu	Ser	Phe	Cys	Trp	Pro	Glu	Trp	Gly	Leu	Ala	Glu	Gln	Tyr
3105					3110				3115					3120	
Pro	Glu	Val	Gly	Thr	Gly	Lys	Arg	Phe	Leu	Asn	Ser	Gly	Gly	Phe	Ile
			3125						3130				3135		
Gly	Phe	Ala	Thr	Thr	Ile	His	Gln	Ile	Val	Arg	Gln	Trp	Lys	Tyr	Lys
	3140						3145				3150				
Asp	Asp	Asp	Asp	Asp	Gln	Leu	Phe	Tyr	Thr	Arg	Leu	Tyr	Leu	Asp	Pro
	3155					3160					3165				
Gly	Leu	Arg	Glu	Lys	Leu	Ser	Leu	Asn	Leu	Asp	His	Lys	Ser	Arg	Ile
	3170				3175				3180						
Phe	Gln	Asn	Leu	Asn	Gly	Ala	Leu	Asp	Glu	Val	Val	Leu	Lys	Phe	Asp
3185					3190				3195					3200	
Arg	Asn	Arg	Val	Arg	Ile	Arg	Asn	Val	Ala	Tyr	Asp	Thr	Leu	Pro	Ile
			3205						3210				3215		
Val	Val	His	Gly	Asn	Gly	Pro	Thr	Lys	Leu	Gln	Leu	Asn	Tyr	Leu	Gly
	3220						3225					3230			

Asn Tyr Val Pro Asn Gly Trp Thr Pro Glu Gly Gly Cys Gly Phe Cys		
3235	3240	3245
Asn Gln Asp Arg Arg Thr Leu Pro Gly Gly Gln Pro Pro Pro Arg Val		
3250	3255	3260
Phe Leu Ala Val Phe Val Glu Gln Pro Thr Pro Phe Leu Pro Arg Phe		
3265	3270	3275
Leu Gln Arg Leu Leu Leu Asp Tyr Pro Pro Asp Arg Val Thr Leu		
3285	3290	3295
Phe Leu His Asn Asn Glu Val Phe His Glu Pro His Ile Ala Asp Ser		
3300	3305	3310
Trp Pro Gln Leu Gln Asp His Phe Ser Ala Val Lys Leu Val Gly Pro		
3315	3320	3325
Glu Glu Ala Leu Ser Pro Gly Glu Ala Arg Asp Met Ala Met Asp Leu		
3330	3335	3340
Cys Arg Gln Asp Pro Glu Cys Glu Phe Tyr Phe Ser Leu Asp Ala Asp		
3345	3350	3355
Ala Val Leu Thr Asn Leu Gln Thr Leu Arg Ile Leu Ile Glu Glu Asn		
3365	3370	3375
Arg Lys Val Ile Ala Pro Met Leu Ser Arg His Gly Lys Leu Trp Ser		
3380	3385	3390
Asn Phe Trp Gly Ala Leu Ser Pro Asp Glu Tyr Tyr Ala Arg Ser Glu		
3395	3400	3405
Asp Tyr Val Glu Leu Val Gln Arg Lys Arg Val Gly Val Trp Asn Val		
3410	3415	3420
Pro Tyr Ile Ser Gln Ala Tyr Val Ile Arg Gly Asp Thr Leu Arg Met		
3425	3430	3435
Glu Leu Pro Gln Arg Asp Val Phe Ser Gly Ser Asp Thr Asp Pro Asp		
3445	3450	3455
Met Ala Phe Cys Lys Ser Phe Arg Asp Lys Gly Ile Phe Leu His Leu		
3460	3465	3470
Ser Asn Gln His Glu Phe Gly Arg Leu Leu Ala Thr Ser Arg Tyr Asp		
3475	3480	3485
Thr Glu His Leu His Pro Asp Leu Trp Gln Ile Phe Asp Asn Pro Val		
3490	3495	3500
Asp Trp Lys Glu Gln Tyr Ile His Glu Asn Tyr Ser Arg Ala Leu Glu		
3505	3510	3515
Gly Glu Gly Ile Val Glu Gln Pro Cys Pro Asp Val Tyr Trp Phe Pro		
3525	3530	3535
Leu Leu Ser Glu Gln Met Cys Asp Glu Leu Val Ala Glu Met Glu His		
3540	3545	3550
Tyr Gly Gln Trp Ser Gly Gly Arg His Glu Asp Ser Arg Leu Ala Gly		
3555	3560	3565
Gly Tyr Glu Asn Val Pro Thr Val Asp Ile His Met Lys Gln Val Gly		
3570	3575	3580
Tyr Glu Asp Gln Trp Leu Gln Leu Leu Arg Thr Tyr Val Gly Pro Met		
3585	3590	3595
Thr Glu Ser Leu Phe Pro Gly Tyr His Thr Lys Ala Arg Ala Val Met		
3605	3610	3615
Asn Phe Val Val Arg Tyr Arg Pro Asp Glu Gln Pro Ser Leu Arg Pro		
3620	3625	3630

His	His	Asp	Ser	Ser	Thr	Phe	Thr	Leu	Asn	Val	Ala	Leu	Asn	His	Lys
		3635						3640					3645		
Gly	Leu	Asp	Tyr	Glu	Gly	Gly	Gly	Cys	Arg	Phe	Leu	Arg	Tyr	Asp	Cys
		3650					3655						3660		
Val	Ile	Ser	Ser	Pro	Arg	Lys	Gly	Trp	Ala	Leu	Leu	His	Pro	Gly	Arg
3665					3670					3675				3680	
Leu	Thr	His	Tyr	His	Glu	Gly	Leu	Pro	Thr	Thr	Trp	Gly	Thr	Arg	Tyr
			3685						3690					3695	
Ile	Met	Val	Ser	Phe	Val	Asp	Pro								
			3700												

<210> 23

<211> 11115

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 23

atgacctcct	cggggcctgg	accccggttc	ctgctgctgc	tgccgctgct	gctgccccct	60
gcggcctcag	cctccgaccg	gccccggggc	cgagacccgg	tcaacccaga	gaagctgctg	120
gtgatcactg	tggccacagc	tgaacccgag	gggtacctgc	gtttcctgcg	ctctgcggag	180
ttcttcaact	acactgtgcg	gaccctgggc	ctgggagagg	agtggcgagg	gggtgatgtg	240
gctcgaacag	ttggtggagg	acagaaggtc	cgggtggtaa	agaaggaaat	ggagaaatac	300
gctgaccggg	aggatatgat	catcatgttt	gtggatagct	acgacgtgat	tctggccggc	360
agccccacag	agctgctgaa	gaagttcgtc	cagagtggca	gccgcctgct	cttctctgca	420
gagagcttct	gctggcccga	gtgggggctg	gcggagcagt	accctgaggt	gggcacgggg	480
aagcgcttcc	tcaattctgg	tggattcatc	ggttttgcca	ccaccatcca	ccaaatcgtg	540
cgccagtggg	agtacaagga	tgatgacgac	gaccagctgt	tctacacacg	gctctacctg	600
gacccaggac	tgaggggagaa	actcagcctt	aatctggatc	ataagtctcg	gatctttcag	660
aacctcaacg	gggctttaga	tgaagtgggt	ttaaagtgtt	atcggaaccg	tgtgcgtatc	720
cggaacgtgg	cctacgacac	gctccccatt	gtggtccatg	gaaacgggtc	cactaagctg	780
cagctcaact	acctgggaaa	ctacgtcccc	aatggctgga	ctcctgaggg	aggctgtggc	840
ttctgcaacc	aggaccggag	gacactcccc	ggggggcagc	ctcccccccg	ggtgtttctg	900
gccgtgtttg	tggaacagcc	tactccgttt	ctgccccgct	tcctgcagcg	gctgctactc	960
ctggactatc	cccccgacag	ggtcacccct	ttcctgcaca	acaacgaggt	cttccatgaa	1020
ccccacatcg	ctgactcctg	gccgcagctc	caggaccact	tctcagctgt	gaagctcgtg	1080
gggccggagg	aggctctgag	cccaggcgag	gccaggggaca	tggccatgga	cctgtgtcgg	1140
caggaccccc	agtgtgagtt	ctacttcagc	ctggacgccg	acgctgtcct	caccaacctg	1200
cagaccctgc	gtatcctcat	tgaggagaac	aggaagggtga	tcgcccccat	gctgtcccgc	1260
cacggcaagc	tgtggtccaa	cttctggggc	gccctgagcc	ccgatgagta	ctacgcccgc	1320
tccgaggact	acgtggagct	ggtgcagcgg	aagcgagtgg	gtgtgtggaa	tgtaccatac	1380
atctcccagg	cctatgtgat	ccgggggtgat	accctgcgga	tggagctgcc	ccagagggat	1440
gtgtttctcg	gcagtgacac	agacccggac	atggccttct	gtaagagctt	tcgagacaag	1500
ggcatcttcc	tccatctgag	caatcagcat	gaatttggcc	ggctcctggc	cacttccaga	1560
tacgacacgg	agcacctgca	ccccgacctc	tggcagatct	tcgacaaccc	cgtcgactgg	1620
aaggagcagt	acatccacga	gaactacagc	cggggccctgg	aaggggaagg	aatcgtggag	1680
cagccatgcc	cggacgtgta	ctggttccca	ctgctgtcag	aacaaatgtg	tgatgagctg	1740

gtggcagaga	tggagcacta	cggccagtgg	tcaggcggcc	ggcatgagga	ttcaaggctg	1800
gctggagggt	acgagaatgt	gcccaccgtg	gacatccaca	tgaagcaggt	gggggtacgag	1860
gaccagtggc	tgcaagtgtg	gcggacgtat	gtggggccca	tgaccgagag	cctgtttccc	1920
ggttaccaca	ccaaggcgcg	ggcggtgatg	aactttgtgg	ttcgctaccg	gccagacgag	1980
cagccgtctc	tgcgggccaca	ccacgactca	tccaccttca	ccctcaacgt	tgccctcaac	2040
cacaagggcc	tggactatga	gggagggtggc	tgccgcttcc	tgcgctacga	ctgtgtgatc	2100
tcctccccga	ggaaggggtg	ggcactcctg	caccccggcc	gcctcaccca	ctaccacgag	2160
gggctgccaa	cgacctgggg	cacacgctac	atcatgggtg	cctttgtcga	ccccggaagc	2220
ggacagtgtg	ctaattatgc	tctcttgaaa	ttggctggag	atgttgagag	caaccctgga	2280
cctacgtgtg	ggcttctggg	ggccgcgctc	tgcgccggga	tcctggcaga	ggcgccccga	2340
gtgcgagccc	agcacaggga	gagagtgacc	tgcacgcgcc	tttacgccgc	tgacattgtg	2400
ttcttactgg	atggctcctc	atccattggc	cgagcaatt	tccgcgaggt	ccgcagcttt	2460
ctcgaagggc	tgggtgtgcc	tttctctgga	gcagccagtg	cacagggtgt	gcgctttgcc	2520
acagtgcagt	acagcgatga	cccacggaca	gagttcggcc	tggatgcact	tggctctggg	2580
ggtgatgtga	tccgcgccat	ccgtgagctt	agctacaagg	ggggcaacac	tcgcacaggg	2640
gctgcaattc	tccatgtggc	tgaccatgtc	ttcctgcccc	agctggcccc	acctggtgtc	2700
cccaaggctc	gcatcctgat	cacagacggg	aagtcccagg	acctggtgga	cacagctgcc	2760
caaaggctga	aggggcaggg	ggtcaagcta	tttgctgtgg	ggatcaagaa	tgctgaccct	2820
gaggagctga	agcgagttgc	ctcacagccc	accagtgaact	tcttcttctt	cgtaaatgac	2880
ttcagcatct	tgaggacact	actgcccctc	gtttcccggg	gagtgtgcac	gactgctggg	2940
ggcgtgcctg	tgacccgacc	tccggatgac	tcgacctctg	ctccacgaga	cctggtgctg	3000
tctgagccaa	gcagccaatc	cttgagagta	cagtggacag	cggccagtgg	ccctgtgact	3060
ggctacaagg	tccagtacac	tcctctgacg	gggctggggc	agccactgcc	gagtgcgagg	3120
caggagggtga	acgtcccagc	tggtgagacc	agtgtgcggc	tgcggggtct	ccggccactg	3180
accgagtacc	aagtgaactgt	gattgccctc	tacgccaaaca	gcatcggggg	ggctgtgagc	3240
gggacagctc	ggaccactgc	cctagaaggg	ccggaactga	ccatccagaa	taccacagcc	3300
cacagcctcc	tgggtggcctg	gcggagtgtg	ccagggtgcca	ctggctaccg	tgtgacatgg	3360
cgggtcctca	gtgggtggggc	cacacagcag	caggagctgg	gccctggggc	gggttcagtgtg	3420
ttgctgcgtg	acttgagacc	tggcacggac	tatgagggtga	ccgtgagcac	cctatttggc	3480
cgcagtgtgg	ggcccgccac	ttccctgatg	gctcgcactg	acgcttctgt	tgagcagacc	3540
ctgcgccccg	tcacctctggg	ccccacatcc	atcctccttt	cctggaactt	ggtgcctgag	3600
gcccgtgggt	accggttggg	atggcgggcgt	gagactggct	tggagccacc	gcagaagggtg	3660
gtactgccct	ctgatgtgac	ccgctaccag	ttggatgggc	tgacgcccggg	cactgagtac	3720
cgccctcacac	tctacactct	gctggaggggc	cacgagggtgg	ccacccctgc	aaccgtgggt	3780
cccactggac	cagagctgcc	tgtgagccct	gtaacagacc	tgcaagccac	cgagctgccc	3840
gggcagcggg	tgcgagtgtc	ctggagccca	gtccctgggtg	ccaccagta	ccgcatcatt	3900
gtgcgcagca	cccaggggggt	tgagcggacc	ctggtgcttc	ctgggagtca	gacagcattc	3960
gacttggtg	acgttcaggc	tgggcttagc	tacactgtgc	gggtgtctgc	tcgagtgggt	4020
ccccgtgagg	gcagtgccag	tgtcctcact	gtccgcgggg	agccggaaac	tccacttgct	4080
gttccagggc	tgcggggtgt	ggtgtcagat	gcaacgcgag	tgagggtggc	ctgggggacc	4140
gtccctggag	ccagtggatt	tcggattagc	tggagcacag	gcagtgggtcc	ggagtccagc	4200
cagacactgc	ccccagactc	tactgccaca	gacatcacag	ggctgcagcc	tggaaaccacc	4260
taccaggtgg	ctgtgtcggg	actgcgaggc	agagaggagg	gccctgctgc	agtcacgtg	4320
gctcgaacgg	accactggg	cccagtgagg	acggtccatg	tgactcaggc	cagcagctca	4380
tctgtcacca	ttacctggac	cagggttcct	ggcgccacag	gatacagggt	ttcctggcac	4440
tcagcccacg	gcccagagaa	atcccagttg	gtttctgggg	aggccacggg	ggctgagctg	4500
gatggactgg	agccagatac	tgagtatacg	gtgcatgtga	gggcccattg	ggctggcggtg	4560
gatgggcccc	ctgcctctgt	ggttgtgagg	actgcccctg	agcctgtggg	tcgtgtgtcg	4620
aggctgcaga	tcctcaatgc	ttccagcgac	gttctacgga	tcacctgggt	aggggtcact	4680
ggagccacag	cttacagact	ggcctggggc	cggagtgaag	gcggccccat	gaggcaccag	4740

atactcccag	gaaacacaga	ctctgcagag	atccggggtc	tcgaagggtg	agtcagctac	4800
tcagtgcgag	tgactgcact	tgtcggggac	cgcgaggga	cacctgtctc	cattgttgtc	4860
actacgccgc	ctgaggctcc	gccagccctg	gggacgcttc	acgtgggtgca	gcgcggggag	4920
cactcgctga	ggctgcgctg	ggagccgggtg	cccagagcgc	agggcttcct	tctgcactgg	4980
caacctgagg	gtggccagga	acagtcccgg	gtcctggggc	ccgagctcag	cagctatcac	5040
ctggacgggc	tggagccagc	gacacagtac	cgcgtgaggc	tgagtgtcct	agggccagct	5100
ggagaagggc	cctctgcaga	ggtgactgcg	cgcactgagt	cacctcgtgt	tccaagcatt	5160
gaactacgtg	tgggtggacac	ctcgatcgac	tcggtgactt	tggcctggac	tccagtgtcc	5220
agggcatcca	gctacatcct	atcctggcgg	ccactcagag	gccctggcca	ggaagtgcct	5280
gggtccccgc	agacacttcc	agggatctca	agctcccagc	gggtgacagg	gctagagcct	5340
ggcgtctctt	acatcttctc	cctgacgcct	gtcctggatg	gtgtgcgggg	tcctgaggca	5400
tctgtcacac	agacgccagt	gtgccccgt	ggcctggcgg	atgtgggtgtt	cctaccacat	5460
gccactcaag	acaatgctca	ccgtgcggag	gctacgagga	gggtcctgga	gcgtctggtg	5520
ttggcacttg	ggcctcttgg	gccacaggca	gttcagggtt	gcctgctgtc	ttacagtcac	5580
cggccctccc	cactgttccc	actgaatggc	tcccatgacc	ttggcattat	cttgcaagg	5640
atccgtgaca	tgccctacat	ggacccaagt	gggaacaacc	tgggcacagc	cgtggtcaca	5700
gctcacagat	acatgttggc	accagatgct	cctgggcgcc	gccagcacgt	accaggggtg	5760
atggttctgc	tagtggatga	acccttgaga	ggtgacatat	tcagccccat	ccgtgaggcc	5820
caggcttctg	ggcttaatgt	ggtgatgttg	ggaatggctg	gagcggaccc	agagcagctg	5880
cgctcgcttg	cggcgggtat	ggactctgtc	cagaccttct	tcgccgtgga	tgatgggcca	5940
agcctggacc	aggcagtcag	tggcttggtc	acagccctgt	gtcaggcatc	cttcactact	6000
cagccccggc	cagagccctg	cccagtgtat	tgtccaaagg	gccagaagg	ggaacctgga	6060
gagatgggccc	tgagaggaca	agttgggcct	cctggcgacc	ctggcctccc	gggcaggacc	6120
ggtgctcccc	gccccagggg	gccccctgga	agtgccactg	ccaagggcga	gaggggcttc	6180
cctggagcag	atgggcgtcc	aggcagccct	ggccgcgcgg	ggaatcctgg	gacccctgga	6240
gccccctggc	taaaagggtc	tccagggttg	cctggccctc	gtggggaccc	gggagagcga	6300
ggacctcgag	gccccaaagg	ggagccgggg	gctcccggac	aagtcacagg	aggtgaaggga	6360
cctgggcctt	ctgggcggaa	aggggaccct	ggaccatcgg	gccccctgg	acctcgtgga	6420
ccactggggg	accaggacc	ccgtggcccc	ccagggcttc	ctggaacagc	catgaagggt	6480
gacaaaggcg	atcgtgggga	gcgggggtccc	cctggaccag	gtgaagggtg	cattgtctct	6540
ggggagcctg	ggctgccggg	tcttcccggg	agccctggac	cccaaggccc	cgttggcccc	6600
cctggaaaaga	aaggagaaaa	aggtgactct	gaggatggag	ctccaggcct	cccaggacaa	6660
cctgggtctc	cgggtgagca	gggcccacgg	ggacctcctg	gagctattgg	cccaaagggt	6720
gaccggggct	ttccaggggc	cctgggtgag	gctggagaga	agggcgaacg	tggacccccca	6780
ggcccagcgg	gatcccgggg	gctgccaggg	gttgcctggac	gtcctggagc	caagggtcct	6840
gaagggccac	caggaccac	tggccgcaa	ggagagaagg	gggagcctgg	tcgccctggg	6900
gaccctgcag	tgggtgggacc	tgctgttgct	ggacccaaag	gagaaaagg	agatgtgggg	6960
cccgtggggc	ccagaggagc	taccggagtc	caaggggaac	ggggcccacc	cggcttggtt	7020
cttcctggag	accctggccc	caagggagac	cctggagacc	ggggtcccat	tggccttact	7080
ggcagagcag	gacccccagg	tgactcaggg	cctcctggag	agaagggaga	ccctgggcgg	7140
cctggccccc	caggacctgt	tggcccccga	ggacgagatg	gtgaagttgg	agagaaagggt	7200
gacgagggtc	ctccgggtga	cccgggtttg	cctggaaaag	caggcgagcg	tggccttcgg	7260
ggggcacctg	gagttcgggg	gcctgtgggt	gaaaagggtg	accagggaga	tcctggagag	7320
gatggacgaa	atggcagccc	tggatcatct	ggacccaagg	gtgaccgtgg	ggagccgggt	7380
ccccaggac	ccccgggacg	gctggtagac	acaggacctg	gagccagaga	gaagggagag	7440
cctggggacc	gcggacaaga	gggtcctcga	gggcccagg	gtgatcctgg	cctccctgga	7500
gccccctggg	aaaggggcat	tgaagggttt	cggggacccc	caggcccaca	gggggaccca	7560
ggtgtccgag	gcccagcagg	agaaaagggt	gaccggggtc	cccctgggct	ggatggccgg	7620
agcggactgg	atgggaaacc	aggagccgct	gggcccctct	ggccgaatgg	tgctgcaggc	7680
aaagctgggg	accaggggag	agacgggcct	ccaggcctcc	gtggagaaca	gggcctccct	7740

ggccccctctg	gtcccccttg	attaccggga	aagccaggcg	aggatggcaa	acctggcctg	7800
aatggaaaaa	acggagaacc	tggggaccct	ggagaagacg	ggaggaaggg	agagaaagga	7860
gattcaggcg	cctctgggag	agaaggctgt	gatggcccca	agggtgagcg	tggagctcct	7920
ggtatccttg	gaccccaggg	gcctccaggc	ctcccagggc	cagtgggccc	tcctggccag	7980
ggttttcctg	gtgtcccagg	aggcacgggc	cccaagggtg	accgtgggga	gactggatcc	8040
aaaggggagc	agggcctccc	tggagagcgt	ggcctgcgag	gagagcctgg	aagtgtgccg	8100
aatgtggatc	ggttgctgga	aactgctggc	atcaaggcat	ctgccctgcg	ggagatcgtg	8160
gagacctggg	atgagagctc	tggtagcttc	ctgcctgtgc	ccgaacggcg	tcgaggcccc	8220
aagggggact	caggcgaaca	gggcccccca	ggcaaggagg	gccccatcgg	ctttcctgga	8280
gaacgcgggc	tgaaggcgga	ccgtggagac	cctggccctc	agggggccacc	tggtctggcc	8340
cttggggaga	ggggcccccc	cgggccttcc	ggccttgccg	gggagcctgg	aaagcctggt	8400
attcccgggc	tcccaggcag	ggctgggggt	gtgggagagg	caggaaaggcc	aggagagagg	8460
ggagaacggg	gagagaaagg	agaacgtgga	gaacagggca	gagatggccc	tcctggactc	8520
cctggaaccc	ctgggcccc	cggaccccc	ggccccaagg	tgtctgtgga	tgagccaggt	8580
cctggactct	ctggagaaca	gggaccccc	ggactcaagg	gtgctaaggg	ggagccgggc	8640
agcaatggtg	accaagggtc	caaaggagac	aggggtgtgc	caggcatcaa	aggagaccgg	8700
ggagagcctg	gaccgagggg	tcaggacggc	aaccgggtc	taccaggaga	gcgtggtatg	8760
gctgggcctg	aagggaagcc	gggtctgcag	ggtccaagag	gccccctgg	cccagtgggt	8820
ggtcatggag	accctggacc	acctggtgcc	ccgggtcttg	ctggccctgc	aggaccccaa	8880
ggaccttctg	gcctgaaggg	ggagcctgga	gagacaggac	ctccaggacg	gggcctgact	8940
ggacctactg	gagctgtggg	acttcctgga	ccccccggcc	cttcaggcct	tgtgggtcca	9000
caggggtctc	caggtttgcc	tggacaagtg	ggggagacag	ggaagccggg	agccccaggt	9060
cgagatggtg	ccagtggaaa	agatggagac	agagggagcc	ctggtgtgcc	agggtcacca	9120
ggtctgcctg	gccctgtcgg	acctaaagga	gaacctggcc	ccacgggggc	ccctggacag	9180
gctgtggtcg	ggctccctgg	agcaaaagga	gagaagggag	cccctggagg	ccttgctgga	9240
gacctggtgg	gtgagccggg	agccaaaggt	gaccgaggac	tgccaggggcc	gcgaggcgag	9300
aaggggtgaag	ctggccgtgc	aggggagccc	ggagaccctg	gggaagatgg	tcagaaaggg	9360
gctccaggac	ccaaagggtt	caagggtgac	ccaggagtgc	gggtcccggg	ctccccctggg	9420
cctcctggcc	ctccagggtg	gaagggagat	ctgggcctcc	ctggcctgcc	cgggtgctcct	9480
ggtgttgttg	ggttcccggg	tcagacaggc	cctcgaggag	agatgggtca	gccaggccct	9540
agtggagagc	ggggcttgcc	aggccccca	gggagagaag	gaatcccagg	accctggggg	9600
ccacctggac	caccggggtc	agtgggacca	cctggggcct	ctggactcaa	aggagacaag	9660
ggagaccctg	gagtagggct	gcctgggccc	cgaggcgagc	gtggggagcc	aggcatccgg	9720
ggtgaagatg	gccgccccgg	ccaggaggga	ccccgaggac	tcacggggcc	ccctggcagc	9780
aggggagagc	gtggggagaa	gggtgatgtt	gggagtgcag	gactaaaggg	tgacaagggga	9840
gactcagctg	tgatcctggg	gcctccaggc	ccacgggggtg	ccaaggggga	catgggtgaa	9900
cgagggcctc	ggggcttgga	tggtgacaaa	ggacctcggg	gagacaatgg	ggaccctggt	9960
gacaagggca	gcaagggaga	gcctggtgac	aagggtcag	ccgggttgcc	aggactgcgt	10020
ggactcctgg	gaccccaggg	tcaacctggt	gcagcaggga	tccctggtga	cccgggatcc	10080
ccaggaaaagg	atggagtgcc	tggtatccga	ggagaaaaaag	gagatgttgg	cttcatgggt	10140
ccccggggcc	tcaagggtga	acggggagtg	aagggagcct	gtggccttga	tggagagaag	10200
ggagacaagg	gagaagctgg	tccccaggc	cgccccgggc	tggcaggaca	caaaggagag	10260
atgggggagc	ctggtgtgcc	gggccagtcg	ggggccctg	gcaaggaggg	cctgatcggg	10320
cccaagggtg	accgaggctt	tgacgggcag	ccaggcccca	agggtgacca	gggcgagaaa	10380
ggggagcggg	gaaccccagg	aattgggggc	ttcccaggcc	ccagtggaaa	tgatggctct	10440
gctggtcccc	cagggccacc	tggcagtgtt	ggtcccagag	gccccgaagg	acttcagggc	10500
cagaagggtg	agcgagggtc	ccccggagag	agagtgggtg	gggctcctgg	ggtccctgga	10560
gctcctggcg	agagagggga	gcaggggcgg	ccagggcctg	ccggtcctcg	aggcgagaag	10620
ggagaagctg	cactgacgga	ggatgacatc	cggggctttg	tgcgccaaga	gatgagtcag	10680
cactgtgcct	gccaggggca	gttcatcgca	tctggatcac	gaccctccc	tagttatgct	10740

```

gcagacactg ccggtcccca gctccatgct gtgcctgtgc tccgcgtctc tcatgcagag 10800
gaggaagagc ggggtaccccc tgaggatgat gagtactctg aatactccga gtattctgtg 10860
gaggagtacc aggaccctga agctccttgg gatagtgatg acccctgttc cctgccactg 10920
gatgaggggct cctgcactgc ctacaccctg cgctgggtacc atcgggctgt gacaggcagc 10980
acagaggcct gtcacccttt tgtctatggg ggctgtggag ggaatgcca ccgttttggg 11040
acccgtgagg cctgcgagcg ccgctgcccc ccccggtggg tccagagcca ggggacaggt 11100
actgccagg actga 11115

```

<210> 24

<211> 3704

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 24

```

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

```

			260				265				270				
Trp	Thr	Pro	Glu	Gly	Gly	Cys	Gly	Phe	Cys	Asn	Gln	Asp	Arg	Arg	Thr
		275					280				285				
Leu	Pro	Gly	Gly	Gln	Pro	Pro	Pro	Arg	Val	Phe	Leu	Ala	Val	Phe	Val
		290				295					300				
Glu	Gln	Pro	Thr	Pro	Phe	Leu	Pro	Arg	Phe	Leu	Gln	Arg	Leu	Leu	Leu
305					310					315					320
Leu	Asp	Tyr	Pro	Pro	Asp	Arg	Val	Thr	Leu	Phe	Leu	His	Asn	Asn	Glu
			325						330					335	
Val	Phe	His	Glu	Pro	His	Ile	Ala	Asp	Ser	Trp	Pro	Gln	Leu	Gln	Asp
			340					345					350		
His	Phe	Ser	Ala	Val	Lys	Leu	Val	Gly	Pro	Glu	Glu	Ala	Leu	Ser	Pro
		355					360					365			
Gly	Glu	Ala	Arg	Asp	Met	Ala	Met	Asp	Leu	Cys	Arg	Gln	Asp	Pro	Glu
	370					375					380				
Cys	Glu	Phe	Tyr	Phe	Ser	Leu	Asp	Ala	Asp	Ala	Val	Leu	Thr	Asn	Leu
385					390					395					400
Gln	Thr	Leu	Arg	Ile	Leu	Ile	Glu	Glu	Asn	Arg	Lys	Val	Ile	Ala	Pro
			405						410					415	
Met	Leu	Ser	Arg	His	Gly	Lys	Leu	Trp	Ser	Asn	Phe	Trp	Gly	Ala	Leu
			420					425					430		
Ser	Pro	Asp	Glu	Tyr	Tyr	Ala	Arg	Ser	Glu	Asp	Tyr	Val	Glu	Leu	Val
		435					440					445			
Gln	Arg	Lys	Arg	Val	Gly	Val	Trp	Asn	Val	Pro	Tyr	Ile	Ser	Gln	Ala
	450					455				460					
Tyr	Val	Ile	Arg	Gly	Asp	Thr	Leu	Arg	Met	Glu	Leu	Pro	Gln	Arg	Asp
465					470					475					480
Val	Phe	Ser	Gly	Ser	Asp	Thr	Asp	Pro	Asp	Met	Ala	Phe	Cys	Lys	Ser
			485						490					495	
Phe	Arg	Asp	Lys	Gly	Ile	Phe	Leu	His	Leu	Ser	Asn	Gln	His	Glu	Phe
			500					505					510		
Gly	Arg	Leu	Leu	Ala	Thr	Ser	Arg	Tyr	Asp	Thr	Glu	His	Leu	His	Pro
		515					520					525			
Asp	Leu	Trp	Gln	Ile	Phe	Asp	Asn	Pro	Val	Asp	Trp	Lys	Glu	Gln	Tyr
	530					535					540				
Ile	His	Glu	Asn	Tyr	Ser	Arg	Ala	Leu	Glu	Gly	Glu	Gly	Ile	Val	Glu
545					550					555					560
Gln	Pro	Cys	Pro	Asp	Val	Tyr	Trp	Phe	Pro	Leu	Leu	Ser	Glu	Gln	Met
			565						570					575	
Cys	Asp	Glu	Leu	Val	Ala	Glu	Met	Glu	His	Tyr	Gly	Gln	Trp	Ser	Gly
			580					585					590		
Gly	Arg	His	Glu	Asp	Ser	Arg	Leu	Ala	Gly	Gly	Tyr	Glu	Asn	Val	Pro
		595					600					605			
Thr	Val	Asp	Ile	His	Met	Lys	Gln	Val	Gly	Tyr	Glu	Asp	Gln	Trp	Leu
					615						620				
Gln	Leu	Leu	Arg	Thr	Tyr	Val	Gly	Pro	Met	Thr	Glu	Ser	Leu	Phe	Pro
625					630					635					640
Gly	Tyr	His	Thr	Lys	Ala	Arg	Ala	Val	Met	Asn	Phe	Val	Val	Arg	Tyr
			645						650					655	
Arg	Pro	Asp	Glu	Gln	Pro	Ser	Leu	Arg	Pro	His	His	Asp	Ser	Ser	Thr

			660					665				670			
Phe	Thr	Leu	Asn	Val	Ala	Leu	Asn	His	Lys	Gly	Leu	Asp	Tyr	Glu	Gly
		675					680					685			
Gly	Gly	Cys	Arg	Phe	Leu	Arg	Tyr	Asp	Cys	Val	Ile	Ser	Ser	Pro	Arg
	690					695					700				
Lys	Gly	Trp	Ala	Leu	Leu	His	Pro	Gly	Arg	Leu	Thr	His	Tyr	His	Glu
705					710					715					720
Gly	Leu	Pro	Thr	Thr	Trp	Gly	Thr	Arg	Tyr	Ile	Met	Val	Ser	Phe	Val
			725					730						735	
Asp	Pro	Gly	Ser	Gly	Gln	Cys	Thr	Asn	Tyr	Ala	Leu	Leu	Lys	Leu	Ala
		740						745					750		
Gly	Asp	Val	Glu	Ser	Asn	Pro	Gly	Pro	Thr	Leu	Arg	Leu	Leu	Val	Ala
	755						760					765			
Ala	Leu	Cys	Ala	Gly	Ile	Leu	Ala	Glu	Ala	Pro	Arg	Val	Arg	Ala	Gln
	770					775					780				
His	Arg	Glu	Arg	Val	Thr	Cys	Thr	Arg	Leu	Tyr	Ala	Ala	Asp	Ile	Val
785					790					795					800
Phe	Leu	Leu	Asp	Gly	Ser	Ser	Ser	Ile	Gly	Arg	Ser	Asn	Phe	Arg	Glu
			805						810					815	
Val	Arg	Ser	Phe	Leu	Glu	Gly	Leu	Val	Leu	Pro	Phe	Ser	Gly	Ala	Ala
			820					825					830		
Ser	Ala	Gln	Gly	Val	Arg	Phe	Ala	Thr	Val	Gln	Tyr	Ser	Asp	Asp	Pro
	835					840						845			
Arg	Thr	Glu	Phe	Gly	Leu	Asp	Ala	Leu	Gly	Ser	Gly	Gly	Asp	Val	Ile
	850					855					860				
Arg	Ala	Ile	Arg	Glu	Leu	Ser	Tyr	Lys	Gly	Gly	Asn	Thr	Arg	Thr	Gly
865					870					875					880
Ala	Ala	Ile	Leu	His	Val	Ala	Asp	His	Val	Phe	Leu	Pro	Gln	Leu	Ala
			885						890					895	
Arg	Pro	Gly	Val	Pro	Lys	Val	Cys	Ile	Leu	Ile	Thr	Asp	Gly	Lys	Ser
		900						905					910		
Gln	Asp	Leu	Val	Asp	Thr	Ala	Ala	Gln	Arg	Leu	Lys	Gly	Gln	Gly	Val
	915						920					925			
Lys	Leu	Phe	Ala	Val	Gly	Ile	Lys	Asn	Ala	Asp	Pro	Glu	Glu	Leu	Lys
	930					935					940				
Arg	Val	Ala	Ser	Gln	Pro	Thr	Ser	Asp	Phe	Phe	Phe	Phe	Val	Asn	Asp
945					950					955					960
Phe	Ser	Ile	Leu	Arg	Thr	Leu	Leu	Pro	Leu	Val	Ser	Arg	Arg	Val	Cys
			965						970					975	
Thr	Thr	Ala	Gly	Gly	Val	Pro	Val	Thr	Arg	Pro	Pro	Asp	Asp	Ser	Thr
			980					985					990		
Ser	Ala	Pro	Arg	Asp	Leu	Val	Leu	Ser	Glu	Pro	Ser	Ser	Gln	Ser	Leu
		995					1000					1005			
Arg	Val	Gln	Trp	Thr	Ala	Ala	Ser	Gly	Pro	Val	Thr	Gly	Tyr	Lys	Val
	1010					1015					1020				
Gln	Tyr	Thr	Pro	Leu	Thr	Gly	Leu	Gly	Gln	Pro	Leu	Pro	Ser	Glu	Arg
1025					1030					1035					1040
Gln	Glu	Val	Asn	Val	Pro	Ala	Gly	Glu	Thr	Ser	Val	Arg	Leu	Arg	Gly
			1045						1050					1055	
Leu	Arg	Pro	Leu	Thr	Glu	Tyr	Gln	Val	Thr	Val	Ile	Ala	Leu	Tyr	Ala

1060						1065						1070					
Asn	Ser	Ile	Gly	Glu	Ala	Val	Ser	Gly	Thr	Ala	Arg	Thr	Ala	Leu			
1075						1080						1085					
Glu	Gly	Pro	Glu	Leu	Thr	Ile	Gln	Asn	Thr	Thr	Ala	His	Ser	Leu	Leu		
1090						1095						1100					
Val	Ala	Trp	Arg	Ser	Val	Pro	Gly	Ala	Thr	Gly	Tyr	Arg	Val	Thr	Trp		
1105						1110						1115					
Arg	Val	Leu	Ser	Gly	Gly	Pro	Thr	Gln	Gln	Gln	Glu	Leu	Gly	Pro	Gly		
1125						1130						1135					
Gln	Gly	Ser	Val	Leu	Leu	Arg	Asp	Leu	Glu	Pro	Gly	Thr	Asp	Tyr	Glu		
1140						1145						1150					
Val	Thr	Val	Ser	Thr	Leu	Phe	Gly	Arg	Ser	Val	Gly	Pro	Ala	Thr	Ser		
1155						1160						1165					
Leu	Met	Ala	Arg	Thr	Asp	Ala	Ser	Val	Glu	Gln	Thr	Leu	Arg	Pro	Val		
1170						1175						1180					
Ile	Leu	Gly	Pro	Thr	Ser	Ile	Leu	Leu	Ser	Trp	Asn	Leu	Val	Pro	Glu		
1185						1190						1195					
Ala	Arg	Gly	Tyr	Arg	Leu	Glu	Trp	Arg	Arg	Glu	Thr	Gly	Leu	Glu	Pro		
1205						1210						1215					
Pro	Gln	Lys	Val	Val	Leu	Pro	Ser	Asp	Val	Thr	Arg	Tyr	Gln	Leu	Asp		
1220						1225						1230					
Gly	Leu	Gln	Pro	Gly	Thr	Glu	Tyr	Arg	Leu	Thr	Leu	Tyr	Thr	Leu	Leu		
1235						1240						1245					
Glu	Gly	His	Glu	Val	Ala	Thr	Pro	Ala	Thr	Val	Val	Pro	Thr	Gly	Pro		
1250						1255						1260					
Glu	Leu	Pro	Val	Ser	Pro	Val	Thr	Asp	Leu	Gln	Ala	Thr	Glu	Leu	Pro		
1265						1270						1275					
Gly	Gln	Arg	Val	Arg	Val	Ser	Trp	Ser	Pro	Val	Pro	Gly	Ala	Thr	Gln		
1285						1290						1295					
Tyr	Arg	Ile	Ile	Val	Arg	Ser	Thr	Gln	Gly	Val	Glu	Arg	Thr	Leu	Val		
1300						1305						1310					
Leu	Pro	Gly	Ser	Gln	Thr	Ala	Phe	Asp	Leu	Asp	Asp	Val	Gln	Ala	Gly		
1315						1320						1325					
Leu	Ser	Tyr	Thr	Val	Arg	Val	Ser	Ala	Arg	Val	Gly	Pro	Arg	Glu	Gly		
1330						1335						1340					
Ser	Ala	Ser	Val	Leu	Thr	Val	Arg	Arg	Glu	Pro	Glu	Thr	Pro	Leu	Ala		
1345						1350						1355					
Val	Pro	Gly	Leu	Arg	Val	Val	Val	Ser	Asp	Ala	Thr	Arg	Val	Arg	Val		
1365						1370						1375					
Ala	Trp	Gly	Pro	Val	Pro	Gly	Ala	Ser	Gly	Phe	Arg	Ile	Ser	Trp	Ser		
1380						1385						1390					
Thr	Gly	Ser	Gly	Pro	Glu	Ser	Ser	Gln	Thr	Leu	Pro	Pro	Asp	Ser	Thr		
1395						1400						1405					
Ala	Thr	Asp	Ile	Thr	Gly	Leu	Gln	Pro	Gly	Thr	Thr	Tyr	Gln	Val	Ala		
1410						1415						1420					
Val	Ser	Val	Leu	Arg	Gly	Arg	Glu	Glu	Gly	Pro	Ala	Ala	Val	Ile	Val		
1425						1430						1435					
Ala	Arg	Thr	Asp	Pro	Leu	Gly	Pro	Val	Arg	Thr	Val	His	Val	Thr	Gln		
1445						1450						1455					
Ala	Ser	Ser	Ser	Ser	Val	Thr	Ile	Thr	Trp	Thr	Arg	Val	Pro	Gly	Ala		

	1460		1465		1470
Thr Gly Tyr Arg Val Ser Trp His Ser Ala His Gly Pro Glu Lys Ser					
	1475		1480		1485
Gln Leu Val Ser Gly Glu Ala Thr Val Ala Glu Leu Asp Gly Leu Glu					
	1490		1495		1500
Pro Asp Thr Glu Tyr Thr Val His Val Arg Ala His Val Ala Gly Val					
1505		1510		1515	1520
Asp Gly Pro Pro Ala Ser Val Val Val Arg Thr Ala Pro Glu Pro Val					
	1525		1530		1535
Gly Arg Val Ser Arg Leu Gln Ile Leu Asn Ala Ser Ser Asp Val Leu					
	1540		1545		1550
Arg Ile Thr Trp Val Gly Val Thr Gly Ala Thr Ala Tyr Arg Leu Ala					
	1555		1560		1565
Trp Gly Arg Ser Glu Gly Gly Pro Met Arg His Gln Ile Leu Pro Gly					
1570		1575		1580	
Asn Thr Asp Ser Ala Glu Ile Arg Gly Leu Glu Gly Gly Val Ser Tyr					
1585		1590		1595	1600
Ser Val Arg Val Thr Ala Leu Val Gly Asp Arg Glu Gly Thr Pro Val					
	1605		1610		1615
Ser Ile Val Val Thr Thr Pro Pro Glu Ala Pro Pro Ala Leu Gly Thr					
	1620		1625		1630
Leu His Val Val Gln Arg Gly Glu His Ser Leu Arg Leu Arg Trp Glu					
	1635		1640		1645
Pro Val Pro Arg Ala Gln Gly Phe Leu Leu His Trp Gln Pro Glu Gly					
	1650		1655		1660
Gly Gln Glu Gln Ser Arg Val Leu Gly Pro Glu Leu Ser Ser Tyr His					
1665		1670		1675	1680
Leu Asp Gly Leu Glu Pro Ala Thr Gln Tyr Arg Val Arg Leu Ser Val					
	1685		1690		1695
Leu Gly Pro Ala Gly Glu Gly Pro Ser Ala Glu Val Thr Ala Arg Thr					
	1700		1705		1710
Glu Ser Pro Arg Val Pro Ser Ile Glu Leu Arg Val Val Asp Thr Ser					
	1715		1720		1725
Ile Asp Ser Val Thr Leu Ala Trp Thr Pro Val Ser Arg Ala Ser Ser					
	1730		1735		1740
Tyr Ile Leu Ser Trp Arg Pro Leu Arg Gly Pro Gly Gln Glu Val Pro					
1745		1750		1755	1760
Gly Ser Pro Gln Thr Leu Pro Gly Ile Ser Ser Ser Gln Arg Val Thr					
	1765		1770		1775
Gly Leu Glu Pro Gly Val Ser Tyr Ile Phe Ser Leu Thr Pro Val Leu					
	1780		1785		1790
Asp Gly Val Arg Gly Pro Glu Ala Ser Val Thr Gln Thr Pro Val Cys					
	1795		1800		1805
Pro Arg Gly Leu Ala Asp Val Val Phe Leu Pro His Ala Thr Gln Asp					
	1810		1815		1820
Asn Ala His Arg Ala Glu Ala Thr Arg Arg Val Leu Glu Arg Leu Val					
1825		1830		1835	1840
Leu Ala Leu Gly Pro Leu Gly Pro Gln Ala Val Gln Val Gly Leu Leu					
	1845		1850		1855
Ser Tyr Ser His Arg Pro Ser Pro Leu Phe Pro Leu Asn Gly Ser His					

			1860					1865					1870			
Asp	Leu	Gly	Ile	Ile	Leu	Gln	Arg	Ile	Arg	Asp	Met	Pro	Tyr	Met	Asp	
		1875					1880					1885				
Pro	Ser	Gly	Asn	Asn	Leu	Gly	Thr	Ala	Val	Val	Thr	Ala	His	Arg	Tyr	
	1890					1895					1900					
Met	Leu	Ala	Pro	Asp	Ala	Pro	Gly	Arg	Arg	Gln	His	Val	Pro	Gly	Val	
1905					1910					1915					1920	
Met	Val	Leu	Leu	Val	Asp	Glu	Pro	Leu	Arg	Gly	Asp	Ile	Phe	Ser	Pro	
				1925					1930					1935		
Ile	Arg	Glu	Ala	Gln	Ala	Ser	Gly	Leu	Asn	Val	Val	Met	Leu	Gly	Met	
			1940					1945					1950			
Ala	Gly	Ala	Asp	Pro	Glu	Gln	Leu	Arg	Arg	Leu	Ala	Pro	Gly	Met	Asp	
		1955					1960					1965				
Ser	Val	Gln	Thr	Phe	Phe	Ala	Val	Asp	Asp	Gly	Pro	Ser	Leu	Asp	Gln	
	1970					1975					1980					
Ala	Val	Ser	Gly	Leu	Ala	Thr	Ala	Leu	Cys	Gln	Ala	Ser	Phe	Thr	Thr	
1985				1990						1995					2000	
Gln	Pro	Arg	Pro	Glu	Pro	Cys	Pro	Val	Tyr	Cys	Pro	Lys	Gly	Gln	Lys	
			2005					2010						2015		
Gly	Glu	Pro	Gly	Glu	Met	Gly	Leu	Arg	Gly	Gln	Val	Gly	Pro	Pro	Gly	
		2020						2025					2030			
Asp	Pro	Gly	Leu	Pro	Gly	Arg	Thr	Gly	Ala	Pro	Gly	Pro	Gln	Gly	Pro	
		2035					2040					2045				
Pro	Gly	Ser	Ala	Thr	Ala	Lys	Gly	Glu	Arg	Gly	Phe	Pro	Gly	Ala	Asp	
	2050					2055					2060					
Gly	Arg	Pro	Gly	Ser	Pro	Gly	Arg	Ala	Gly	Asn	Pro	Gly	Thr	Pro	Gly	
2065				2070						2075					2080	
Ala	Pro	Gly	Leu	Lys	Gly	Ser	Pro	Gly	Leu	Pro	Gly	Pro	Arg	Gly	Asp	
			2085					2090						2095		
Pro	Gly	Glu	Arg	Gly	Pro	Arg	Gly	Pro	Lys	Gly	Glu	Pro	Gly	Ala	Pro	
		2100						2105					2110			
Gly	Gln	Val	Ile	Gly	Gly	Glu	Gly	Pro	Gly	Leu	Pro	Gly	Arg	Lys	Gly	
	2115					2120					2125					
Asp	Pro	Gly	Pro	Ser	Gly	Pro	Pro	Gly	Pro	Arg	Gly	Pro	Leu	Gly	Asp	
	2130					2135					2140					
Pro	Gly	Pro	Arg	Gly	Pro	Pro	Gly	Leu	Pro	Gly	Thr	Ala	Met	Lys	Gly	
2145				2150						2155					2160	
Asp	Lys	Gly	Asp	Arg	Gly	Glu	Arg	Gly	Pro	Pro	Gly	Pro	Gly	Glu	Gly	
			2165					2170						2175		
Gly	Ile	Ala	Pro	Gly	Glu	Pro	Gly	Leu	Pro	Gly	Leu	Pro	Gly	Ser	Pro	
		2180					2185					2190				
Gly	Pro	Gln	Gly	Pro	Val	Gly	Pro	Pro	Gly	Lys	Lys	Gly	Glu	Lys	Gly	
	2195						2200					2205				
Asp	Ser	Glu	Asp	Gly	Ala	Pro	Gly	Leu	Pro	Gly	Gln	Pro	Gly	Ser	Pro	
	2210					2215										

	2260		2265		2270
Gly Arg Pro Gly Ala Lys Gly Pro Glu Gly Pro Pro Gly Pro Thr Gly					
2275			2280		2285
Arg Gln Gly Glu Lys Gly Glu Pro Gly Arg Pro Gly Asp Pro Ala Val					
2290			2295		2300
Val Gly Pro Ala Val Ala Gly Pro Lys Gly Glu Lys Gly Asp Val Gly					
2305			2310		2315
Pro Ala Gly Pro Arg Gly Ala Thr Gly Val Gln Gly Glu Arg Gly Pro					
2325			2330		2335
Pro Gly Leu Val Leu Pro Gly Asp Pro Gly Pro Lys Gly Asp Pro Gly					
2340			2345		2350
Asp Arg Gly Pro Ile Gly Leu Thr Gly Arg Ala Gly Pro Pro Gly Asp					
2355			2360		2365
Ser Gly Pro Pro Gly Glu Lys Gly Asp Pro Gly Arg Pro Gly Pro Pro					
2370			2375		2380
Gly Pro Val Gly Pro Arg Gly Arg Asp Gly Glu Val Gly Glu Lys Gly					
2385			2390		2395
Asp Glu Gly Pro Pro Gly Asp Pro Gly Leu Pro Gly Lys Ala Gly Glu					
2405			2410		2415
Arg Gly Leu Arg Gly Ala Pro Gly Val Arg Gly Pro Val Gly Glu Lys					
2420			2425		2430
Gly Asp Gln Gly Asp Pro Gly Glu Asp Gly Arg Asn Gly Ser Pro Gly					
2435			2440		2445
Ser Ser Gly Pro Lys Gly Asp Arg Gly Glu Pro Gly Pro Pro Gly Pro					
2450			2455		2460
Pro Gly Arg Leu Val Asp Thr Gly Pro Gly Ala Arg Glu Lys Gly Glu					
2465			2470		2475
Pro Gly Asp Arg Gly Gln Glu Gly Pro Arg Gly Pro Lys Gly Asp Pro					
2485			2490		2495
Gly Leu Pro Gly Ala Pro Gly Glu Arg Gly Ile Glu Gly Phe Arg Gly					
2500			2505		2510
Pro Pro Gly Pro Gln Gly Asp Pro Gly Val Arg Gly Pro Ala Gly Glu					
2515			2520		2525
Lys Gly Asp Arg Gly Pro Pro Gly Leu Asp Gly Arg Ser Gly Leu Asp					
2530			2535		2540
Gly Lys Pro Gly Ala Ala Gly Pro Ser Gly Pro Asn Gly Ala Ala Gly					
2545			2550		2555
Lys Ala Gly Asp Pro Gly Arg Asp Gly Leu Pro Gly Leu Arg Gly Glu					
2565			2570		2575
Gln Gly Leu Pro Gly Pro Ser Gly Pro Pro Gly Leu Pro Gly Lys Pro					
2580			2585		2590
Gly Glu Asp Gly Lys Pro Gly Leu Asn Gly Lys Asn Gly Glu Pro Gly					
2595			2600		2605
Asp Pro Gly Glu Asp Gly Arg Lys Gly Glu Lys Gly Asp Ser Gly Ala					
2610			2615		2620
Ser Gly Arg Glu Gly Arg Asp Gly Pro Lys Gly Glu Arg Gly Ala Pro					
2625			2630		2635
Gly Ile Leu Gly Pro Gln Gly Pro Pro Gly Leu Pro Gly Pro Val Gly					
2645			2650		2655
Pro Pro Gly Gln Gly Phe Pro Gly Val Pro Gly Gly Thr Gly Pro Lys					

	2660		2665		2670
Gly Asp Arg	Gly Glu Thr	Gly Ser Lys	Gly Glu Gln	Gly Leu Pro	Gly
2675		2680		2685	
Glu Arg Gly	Leu Arg Gly	Glu Pro Gly	Ser Val Pro	Asn Val Asp	Arg
2690		2695		2700	
Leu Leu Glu	Thr Ala Gly	Ile Lys Ala	Ser Ala Leu	Arg Glu Ile	Val
2705		2710		2715	
Glu Thr Trp	Asp Glu Ser	Ser Gly Ser	Phe Leu Pro	Val Pro Glu	Arg
	2725		2730		2735
Arg Arg Gly	Pro Lys Gly	Asp Ser Gly	Glu Gln Gly	Pro Pro Gly	Lys
	2740		2745		2750
Glu Gly Pro	Ile Gly Phe	Pro Gly Glu	Arg Gly Leu	Lys Gly Asp	Arg
	2755		2760		2765
Gly Asp Pro	Gly Pro Gln	Gly Pro Pro	Gly Leu Ala	Leu Gly Glu	Arg
	2770		2775		2780
Gly Pro Pro	Gly Pro Ser	Gly Leu Ala	Gly Glu Pro	Gly Lys Pro	Gly
2785		2790		2795	
Ile Pro Gly	Leu Pro Gly	Arg Ala Gly	Gly Val Gly	Glu Ala Gly	Arg
	2805		2810		2815
Pro Gly Glu	Arg Gly Glu	Arg Gly Glu	Lys Gly Glu	Arg Gly Glu	Gln
	2820		2825		2830
Gly Arg Asp	Gly Pro Pro	Gly Leu Pro	Gly Thr Pro	Gly Pro Pro	Gly
	2835		2840		2845
Pro Pro Gly	Pro Lys Val	Ser Val Asp	Glu Pro Gly	Pro Gly Leu	Ser
	2850		2855		2860
Gly Glu Gln	Gly Pro Pro	Gly Leu Lys	Gly Ala Lys	Gly Glu Pro	Gly
2865		2870		2875	
Ser Asn Gly	Asp Gln Gly	Pro Lys Gly	Asp Arg Gly	Val Pro Gly	Ile
	2885		2890		2895
Lys Gly Asp	Arg Gly Glu	Pro Gly Pro	Arg Gly Gln	Asp Gly Asn	Pro
	2900		2905		2910
Gly Leu Pro	Gly Glu Arg	Gly Met Ala	Gly Pro Glu	Gly Lys Pro	Gly
	2915		2920		2925
Leu Gln Gly	Pro Arg Gly	Pro Pro Gly	Pro Val Gly	Gly Gly His	Gly
	2930		2935		2940
Pro Gly Pro	Pro Gly Ala	Pro Gly Leu	Ala Gly Pro	Ala Gly Pro	Gln
2945		2950		2955	
Gly Pro Ser	Gly Leu Lys	Gly Glu Pro	Gly Glu Thr	Gly Pro Pro	Gly
	2965		2970		2975
Arg Gly Leu	Thr Gly Pro	Thr Gly Ala	Val Gly Leu	Pro Gly Pro	Pro
	2980		2985		2990
Gly Pro Ser	Gly Leu Val	Gly Pro Gln	Gly Ser Pro	Gly Leu Pro	Gly
	2995		3000		3005
Gln Val Gly	Glu Thr Gly	Lys Pro Gly	Ala Pro Gly	Arg Asp Gly	Ala
	3010		3015		3020
Ser Gly Lys	Asp Gly Asp	Arg Gly Ser	Pro Gly Val	Pro Gly Ser	Pro
3025		3030		3035	
Gly Leu Pro	Gly Pro Val	Gly Pro Lys	Gly Glu Pro	Gly Pro Thr	Gly
	3045		3050		3055
Ala Pro Gly	Gln Ala Val	Val Gly Leu	Pro Gly Ala	Lys Gly Glu	Lys

	3060		3065		3070
Gly Ala Pro Gly Gly Leu Ala Gly Asp Leu Val Gly Glu Pro Gly Ala					
3075		3080		3085	
Lys Gly Asp Arg Gly Leu Pro Gly Pro Arg Gly Glu Lys Gly Glu Ala					
3090		3095		3100	
Gly Arg Ala Gly Glu Pro Gly Asp Pro Gly Glu Asp Gly Gln Lys Gly					
3105		3110		3115	3120
Ala Pro Gly Pro Lys Gly Phe Lys Gly Asp Pro Gly Val Gly Val Pro					
3125		3130		3135	
Gly Ser Pro Gly Pro Pro Gly Pro Pro Gly Val Lys Gly Asp Leu Gly					
3140		3145		3150	
Leu Pro Gly Leu Pro Gly Ala Pro Gly Val Val Gly Phe Pro Gly Gln					
3155		3160		3165	
Thr Gly Pro Arg Gly Glu Met Gly Gln Pro Gly Pro Ser Gly Glu Arg					
3170		3175		3180	
Gly Leu Ala Gly Pro Pro Gly Arg Glu Gly Ile Pro Gly Pro Leu Gly					
3185		3190		3195	3200
Pro Pro Gly Pro Pro Gly Ser Val Gly Pro Pro Gly Ala Ser Gly Leu					
3205		3210		3215	
Lys Gly Asp Lys Gly Asp Pro Gly Val Gly Leu Pro Gly Pro Arg Gly					
3220		3225		3230	
Glu Arg Gly Glu Pro Gly Ile Arg Gly Glu Asp Gly Arg Pro Gly Gln					
3235		3240		3245	
Glu Gly Pro Arg Gly Leu Thr Gly Pro Pro Gly Ser Arg Gly Glu Arg					
3250		3255		3260	
Gly Glu Lys Gly Asp Val Gly Ser Ala Gly Leu Lys Gly Asp Lys Gly					
3265		3270		3275	3280
Asp Ser Ala Val Ile Leu Gly Pro Pro Gly Pro Arg Gly Ala Lys Gly					
3285		3290		3295	
Asp Met Gly Glu Arg Gly Pro Arg Gly Leu Asp Gly Asp Lys Gly Pro					
3300		3305		3310	
Arg Gly Asp Asn Gly Asp Pro Gly Asp Lys Gly Ser Lys Gly Glu Pro					
3315		3320		3325	
Gly Asp Lys Gly Ser Ala Gly Leu Pro Gly Leu Arg Gly Leu Leu Gly					
3330		3335		3340	
Pro Gln Gly Gln Pro Gly Ala Ala Gly Ile Pro Gly Asp Pro Gly Ser					
3345		3350		3355	3360
Pro Gly Lys Asp Gly Val Pro Gly Ile Arg Gly Glu Lys Gly Asp Val					
3365		3370		3375	
Gly Phe Met Gly Pro Arg Gly Leu Lys Gly Glu Arg Gly Val Lys Gly					
3380		3385		3390	
Ala Cys Gly Leu Asp Gly Glu Lys Gly Asp Lys Gly Glu Ala Gly Pro					
3395		3400		3405	
Pro Gly Arg Pro Gly Leu Ala Gly His Lys Gly Glu Met Gly Glu Pro					
3410		3415		3420	
Gly Val Pro Gly Gln Ser Gly Ala Pro Gly Lys Glu Gly Leu Ile Gly					
3425		3430		3435	3440
Pro Lys Gly Asp Arg Gly Phe Asp Gly Gln Pro Gly Pro Lys Gly Asp					
3445		3450		3455	
Gln Gly Glu Lys Gly Glu Arg Gly Thr Pro Gly Ile Gly Gly Phe Pro					

	3460		3465		3470										
Gly	Pro	Ser	Gly	Asn	Asp	Gly	Ser	Ala	Gly	Pro	Pro	Gly	Pro	Pro	Gly
	3475		3480		3485										
Ser	Val	Gly	Pro	Arg	Gly	Pro	Glu	Gly	Leu	Gln	Gly	Gln	Lys	Gly	Glu
	3490		3495		3500										
Arg	Gly	Pro	Pro	Gly	Glu	Arg	Val	Val	Gly	Ala	Pro	Gly	Val	Pro	Gly
3505			3510		3515				3520						
Ala	Pro	Gly	Glu	Arg	Gly	Glu	Gln	Gly	Arg	Pro	Gly	Pro	Ala	Gly	Pro
	3525		3530		3535										
Arg	Gly	Glu	Lys	Gly	Glu	Ala	Ala	Leu	Thr	Glu	Asp	Asp	Ile	Arg	Gly
	3540		3545		3550										
Phe	Val	Arg	Gln	Glu	Met	Ser	Gln	His	Cys	Ala	Cys	Gln	Gly	Gln	Phe
	3555		3560		3565										
Ile	Ala	Ser	Gly	Ser	Arg	Pro	Leu	Pro	Ser	Tyr	Ala	Ala	Asp	Thr	Ala
	3570		3575		3580										
Gly	Ser	Gln	Leu	His	Ala	Val	Pro	Val	Leu	Arg	Val	Ser	His	Ala	Glu
3585			3590		3595				3600						
Glu	Glu	Glu	Arg	Val	Pro	Pro	Glu	Asp	Asp	Glu	Tyr	Ser	Glu	Tyr	Ser
	3605		3610		3615										
Glu	Tyr	Ser	Val	Glu	Glu	Tyr	Gln	Asp	Pro	Glu	Ala	Pro	Trp	Asp	Ser
	3620		3625		3630										
Asp	Asp	Pro	Cys	Ser	Leu	Pro	Leu	Asp	Glu	Gly	Ser	Cys	Thr	Ala	Tyr
	3635		3640		3645										
Thr	Leu	Arg	Trp	Tyr	His	Arg	Ala	Val	Thr	Gly	Ser	Thr	Glu	Ala	Cys
	3650		3655		3660										
His	Pro	Phe	Val	Tyr	Gly	Gly	Cys	Gly	Gly	Asn	Ala	Asn	Arg	Phe	Gly
3665			3670		3675				3680						
Thr	Arg	Glu	Ala	Cys	Glu	Arg	Arg	Cys	Pro	Pro	Arg	Val	Val	Gln	Ser
	3685		3690		3695										
Gln	Gly	Thr	Gly	Thr	Ala	Gln	Asp								
	3700														

<210> 25

<211> 11121

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 25

```

atgacgtgc ggcttctggt ggccgcgctc tgcgccggga tcctggcaga ggcgccccga 60
gtgcgagccc agcacaggga gagagtgacc tgcacgcgcc ttacgccgc tgacattgtg 120
ttcttactgg atggctcttc atccattggc cgcagcaatt tccgcgaggt ccgcagcttt 180
ctcgaagggc tgggtgtgcc tttctctgga gcagccagtg cacagggtgt gcgctttgcc 240
acagtgcagt acagcgatga cccacggaca gagttcggcc tggatgcact tggctctggg 300
ggtgatgtga tccgcgccat ccgtgagctt agctacaagg ggggcaacac tcgcacaggg 360
gctgcaattc tccatgtggc tgacctgtc ttcctgcccc agctggcccc acctggtgtc 420
cccaaggctc gcatcctgat cacagacggg aagtcaccagg acctggtgga cacagctgcc 480

```

caaaggctga	aggggcaggg	ggtcaagcta	tttgctgtgg	ggatcaagaa	tgctgaccct	540
gaggagctga	agcgagttgc	ctcacagccc	accagtgact	tcttcttctt	cgtcaatgac	600
ttcagcatct	tgaggacact	actgcccctc	gtttcccgga	gagtgtgcac	gactgctggg	660
ggcgtgcctg	tgacccgacc	tccggatgac	tcgacctctg	ctccacgaga	cctgggtgctg	720
tctgagccaa	gcagccaatc	cttgagagta	cagtggacag	cggccagtgg	ccctgtgact	780
ggctacaagg	tccagtacac	tcctctgacg	gggctgggac	agccactgcc	gagtgagcgg	840
caggaggtga	acgtcccagc	tggtgagacc	agtgtgcggc	tgcggggtct	ccggccactg	900
accgagtacc	aagtgactgt	gattgccctc	tacgccaaca	gcatcgggga	ggctgtgagc	960
gggacagctc	ggaccactgc	cctagaaggg	ccggaactga	ccatccagaa	taccacagcc	1020
cacagcctcc	tggtggcctg	gcggagtgtg	ccaggtgcca	ctggctaccg	tgtgacatgg	1080
cgggtcctca	gtgggtggg	cacacagcag	caggagctgg	gccctgggca	gggttcagtg	1140
ttgctgcgtg	acttgagacc	tggcacggac	tatgaggtga	ccgtgagcac	cctatttggc	1200
cgcagtgtgg	ggcccgccac	ttccctgatg	gctcgcactg	acgcttctgt	tgagcagacc	1260
ctgcgcccgg	tcacctggg	ccccacatcc	atcctccttt	cctggaactt	ggtgcctgag	1320
gcccgtggct	accggttga	atggcggcgt	gagactggct	tggagccacc	gcagaagggtg	1380
gtactgccct	ctgatgtgac	ccgctaccag	ttggatgggc	tgacgcccgg	cactgagtac	1440
cgcctcacac	tctacactct	gctggagggc	cacgaggtgg	ccacccctgc	aaccgtgggt	1500
cccactggac	cagagctgcc	tgtgagccct	gtaacagacc	tgcaagccac	cgagctgccc	1560
gggcagcggg	tgcgagtgtc	ctggagccca	gtccctgggt	ccaccagta	ccgcatcatt	1620
gtgcgcagca	cccagggggg	tgagcggacc	ctgggtgctt	ctgggagtca	gacagcattc	1680
gacttggatg	acgttcaggc	tgggcttagc	tacactgtgc	gggtgtctgc	tcgagtgggt	1740
ccccgtgagg	gcagtgccag	tgtcctcact	gtccgccggg	agccggaaac	tccacttgct	1800
gttccagggc	tgcggggtgt	ggtgtcagat	gcaacgcgag	tgaggggtgg	ctggggaccc	1860
gtccctggag	ccagtggatt	tcggattagc	tggagcacag	gcagtgggtc	ggagtccagc	1920
cagacactgc	ccccagactc	tactgccaca	gacatcacag	ggctgcagcc	tggaaaccac	1980
taccaggtgg	ctgtgtcggt	actgcgaggc	agagaggagg	gccctgctgc	agtcacgtg	2040
gctcgaacgg	accactggg	cccagtgagg	acggtccatg	tgactcaggc	cagcagctca	2100
tctgtcacca	ttacctggac	cagggttcct	ggcgccacag	gatacagggt	ttcctggcac	2160
tcagcccacg	gcccagagaa	atcccagttg	gtttctgggg	aggccacggg	ggctgagctg	2220
gatggactgg	agccagatac	tgagtatacg	gtgcatgtga	gggcccattg	ggctggcgtg	2280
gatgggcccc	ctgcctctgt	ggttgtgagg	actgcccctg	agcctgtggg	tcgtgtgtcg	2340
aggctgcaga	tcctcaatgc	ttccagcgac	gttctacgga	tcacctgggt	aggggtcact	2400
ggagccacag	cttacagact	ggcctggggc	cggagtgaag	gcggcccat	gaggcaccag	2460
atactcccag	gaaacacaga	ctctgcagag	atccgggggtc	tcgaagggtg	agtcagctac	2520
tcagtgcgag	tgactgcact	tgtcggggac	cgcgagggca	cacctgtctc	cattgttgtc	2580
actacgccgc	ctgaggctcc	gccagccctg	gggacgcttc	acgtgggtga	gcgcggggag	2640
cactcgctga	ggctgcgctg	ggagccgggtg	cccagagcgc	agggttcct	tctgactggt	2700
caacctgagg	gtggccagga	acagtcccgg	gtcctggggc	ccgagctcag	cagctatcac	2760
ctggacgggc	tggagccagc	gacacagtac	cgcgtgaggc	tgagtgtcct	agggccagct	2820
ggagaagggc	cctctgcaga	ggtgactgcg	cgcactgagt	cacctcgtgt	tccaagcatt	2880
gaactacgtg	tgggtggacac	ctcgatcgac	tcggtgactt	tggcctggac	tccagtgtcc	2940
agggcatcca	gctacatcct	atcctggcgg	ccactcagag	gccctggcca	ggaagtgcct	3000
gggtccccgc	agacacttcc	agggatctca	agctcccagc	gggtgacagg	gctagagcct	3060
ggcgtctctt	acatcttctc	cctgacgcct	gtcctggatg	gtgtgcgggg	tcctgaggca	3120
tctgtcacac	agacgccagt	gtgccccctg	ggcctggcgg	atgtgggtgt	cctaccacat	3180
gccactcaag	acaatgctca	ccgtgcggag	gctacgagga	gggtcctgga	gcgtctgggt	3240
ttggcacttg	ggcctcttgg	gccacaggca	gttcagggtg	gcctgctgtc	ttacagtcac	3300
cggccctccc	cactgttccc	actgaatggc	tcccatgacc	ttggcattat	cttgcaaagg	3360
atccgtgaca	tgccctacat	ggacccaagt	gggaacaacc	tgggcacagc	cgtgggtcac	3420
gctcacagat	acatgttggc	accagatgct	cctgggcgcc	gccagcacgt	accaggggtg	3480

atggttctgc	tagtggatga	acccttgaga	ggtgacatat	tcagcccat	ccgtgaggcc	3540
caggcttctg	ggcttaatgt	ggtgatgttg	ggaatggctg	gagcggaccc	agagcagctg	3600
cgctcgcttg	cgccgggtat	ggactctgtc	cagaccttct	tcgccgtgga	tgatgggcca	3660
agcctggacc	aggcagtcag	tggtctggcc	acagccctgt	gtcaggcatc	cttcactact	3720
cagccccggc	cagagccctg	cccagtgtat	tgtccaaagg	gccagaaggg	ggaacctgga	3780
gagatgggccc	tgagaggaca	agttgggcct	cctggcgacc	ctggcctccc	gggcaggacc	3840
ggtgctcccc	gccccagggg	gccccctgga	agtgccactg	ccaagggcga	gaggggcttc	3900
cctggagcag	atgggcgtcc	aggcagccct	ggccgcgccg	ggaatcctgg	gacctctgga	3960
gccccctggc	taaaagggtc	tccagggttg	cctggccctc	gtggggaccc	gggagagcga	4020
ggacctcgag	gccccaaagg	ggagccgggg	gctcccggac	aagtcacagg	aggtgaagga	4080
cctgggcttc	ctgggcggaa	aggggacctt	ggaccatcgg	gccccctgg	acctcgtgga	4140
ccactggggg	acccaggacc	ccgtggcccc	ccagggcttc	ctggaacagc	catgaagggt	4200
gacaaaggcg	atcgtgggga	gcgggggtccc	cctggaccag	gtgaagggtg	cattgctcct	4260
ggggagcctg	ggctgccggg	tcttcccggg	agccctggac	cccaaggccc	cgttggcccc	4320
cctggaaaaga	aaggagaaaa	aggtgactct	gaggatggag	ctccaggcct	cccaggacaa	4380
cctgggtctc	cgggtgagca	gggcccacgg	ggacctctg	gagctattgg	ccccaaagg	4440
gaccggggct	ttccaggggc	cctgggtgag	gctggagaga	agggcgaacg	tggaccccc	4500
ggcccagcgg	gatccccggg	gctgccaggg	gttgctggac	gtcctggagc	caagggtcct	4560
gaagggccac	caggaccac	tggccgcca	ggagagaagg	gggagcctgg	tcgccctggg	4620
gaccctgcag	tgggtgggac	tgctgttgct	ggacccaaag	gagaaaagg	agatgtgggg	4680
cccgtggggc	ccagaggagc	taccggagtc	caaggggaac	ggggcccacc	cggcttgggt	4740
cttcctggag	accctggccc	caagggagac	cctggagacc	ggggtcccat	tggccttact	4800
ggcagagcag	gacccccagg	tgactcaggg	cctcctggag	agaagggaga	ccctgggcgg	4860
cctggcccc	caggacctgt	tggccccga	ggacgagatg	gtgaagtgg	agagaaagg	4920
gacgagggtc	ctccgggtga	cccgggtttg	cctggaaaag	caggcgagcg	tggccttcgg	4980
ggggcacctg	gagttcgggg	gcctgtgggt	gaaaaggag	accagggaga	tcctggagag	5040
gatggacgaa	atggcagccc	tggatcatct	ggacccaagg	gtgaccgtgg	ggagccgggt	5100
ccccaggac	ccccgggacg	gctggtagac	acaggacctg	gagccagaga	gaagggagag	5160
cctggggacc	gcggacaaga	gggtcctcga	gggcccagg	gtgatcctgg	cctccctgga	5220
gccccctggg	aaaggggcat	tgaagggttt	cggggacccc	caggcccaca	gggggaccca	5280
ggtgtccgag	gcccagcagg	agaaaagggt	gaccggggtc	cccctgggct	ggatggccgg	5340
agcggactgg	atgggaaaacc	aggagccgct	gggccctctg	ggccgaatgg	tgctgcaggc	5400
aaagctgggg	acccaggggag	agacgggctt	ccaggcctcc	gtggagaaca	gggcctccct	5460
ggccccctctg	gtccccctgg	attaccggga	aagccaggcg	aggatggcaa	acctggcctg	5520
aatggaaaaa	acggagaacc	tggggacctt	ggagaagacg	ggaggaagg	agagaaagga	5580
gattcaggcg	cctctgggag	agaaggctgt	gatggcccca	agggtgagcg	tggagctcct	5640
ggtatccttg	gaccccaggg	gcctccaggc	ctcccagggc	cagtgggccc	tcctggccag	5700
ggttttcctg	gtgtcccagg	aggcacgggc	cccaagggtg	accgtgggga	gactggatcc	5760
aaaggggagc	agggcctccc	tggagagcgt	ggcctgcgag	gagagcctgg	aagtgtgccg	5820
aatgtggatc	ggttgctgga	aactgctggc	atcaaggcat	ctgccctgcg	ggagatcggt	5880
gagacctggg	atgagagctc	tggtagcttc	ctgcctgtgc	ccgaacggcg	tcgaggcccc	5940
aagggggact	caggcgaaca	gggcccccca	ggcaaggagg	gccccatcgg	ctttcctgga	6000
gaacgcgggc	tgaagggcga	ccgtggagac	cctggccctc	agggggccacc	tggctctggc	6060
cttggggaga	ggggcccccc	cgggccttcc	ggccttgccg	gggagcctgg	aaagcctggt	6120
attcccgggc	tcccaggcag	ggctgggggt	gtgggagagg	caggaaaggcc	aggagagagg	6180
ggagaacggg	gagagaaaagg	agaacgtgga	gaacagggca	gagatggccc	tcctggactc	6240
cctggaaccc	ctgggcccc	cggaccccc	ggccccaagg	tgtctgtgga	tgagccagg	6300
cctggactct	ctggagaaca	gggaccccc	ggactcaagg	gtgctaagg	ggagccgggc	6360
agcaatggtg	accaagggtc	caaaggagac	aggggtgtgc	caggcatcaa	aggagaccgg	6420
ggagagcctg	gaccgagggg	tcaggacggc	aaccgggtc	taccaggaga	gcgtggtatg	6480

gctgggcctg	aagggaagcc	gggtctgcag	ggccaagag	gccccctgg	cccagtgggt	6540
ggatcatggag	accctggacc	acctgggtgcc	ccgggtcttg	ctggccctgc	aggaccccaa	6600
ggaccttctg	gcctgaaggg	ggagcctgga	gagacaggac	ctccaggacg	gggcctgact	6660
ggacctactg	gagctgtggg	acttcctgga	cccccggcc	cttcaggcct	tgtgggtcca	6720
caggggtctc	caggtttgcc	tggacaagtg	ggggagacag	ggaagccggg	agccccaggt	6780
cgagatgggtg	ccagtggaaa	agatggagac	agagggagcc	ctgggtgtgcc	agggtcacca	6840
ggctctgcctg	gcccgtgtcgg	acctaaagga	gaacctggcc	ccacggggggc	ccctggacag	6900
gctgtgggtcg	ggctccctgg	agcaaaaggga	gagaaggagg	cccctggagg	ccttgctgga	6960
gacctgggtgg	gtgagccggg	agccaaagggt	gaccgaggac	tgccaggggcc	gcgaggcgag	7020
aagggtgaag	ctggccgtgc	aggggagccc	ggagacctg	gggaagatgg	tcagaaaagg	7080
gctccaggac	ccaaagggtt	caagggtgac	ccaggagtcg	gggtcccggg	ctcccctggg	7140
cctcctggcc	ctccagggtg	gaaggagat	ctgggcctcc	ctggcctgcc	cgggtgctcct	7200
gggtgtgttg	ggttcccggg	tcagacaggc	cctcgaggag	agatgggtca	gccaggccct	7260
agtggagagc	ggggcttggc	aggccccca	gggagagaag	gaatcccagg	accctggggg	7320
ccacctggac	caccggggtc	agtgggacca	cctggggcct	ctggactcaa	aggagacaag	7380
ggagaccctg	gagtagggct	gcctggggccc	cgaggcgagc	gtggggagcc	aggcatccgg	7440
ggatgaagatg	gccgccccgg	ccaggaggga	ccccgaggac	tcacggggcc	ccctggcagc	7500
aggggagagc	gtggggagaa	gggtgatgtt	gggagtgcag	gactaaaagg	tgacaaggga	7560
gactcagctg	tgatcctggg	gcctccaggc	ccacgggggtg	ccaaggggga	catgggtgaa	7620
cgagggcctc	ggggcttggg	tggtgacaaa	ggacctcggg	gagacaatgg	ggaccctgggt	7680
gacaagggca	gcaagggaga	gcctgggtgac	aagggtcag	ccgggttgcc	aggactgcgt	7740
ggactcctgg	gaccccaggg	tcaacctggt	gcagcaggga	tccctggtga	cccgggatcc	7800
ccaggaaaagg	atggagtgcc	tggtatccga	ggagaaaaag	gagatgttgg	cttcattgggt	7860
ccccggggcc	tcaagggtga	acggggagtg	aagggagcct	gtggccttga	tggagagaag	7920
ggagacaagg	gagaagctgg	tccccaggc	cgccccgggc	tggcaggaca	caaaggagag	7980
atgggggagc	ctggtgtgcc	gggccagtcg	ggggcccttg	gcaaggaggg	cctgatcgggt	8040
cccaagggtg	accgaggctt	tgacgggcag	ccaggcccca	agggtgacca	gggcgagaaa	8100
ggggagcggg	gaaccccagg	aattggggggc	ttcccaggcc	ccagtggaaa	tgatggctct	8160
gctggtcccc	cagggccacc	tggcagtgtt	ggtcccagag	gccccgaagg	acttcagggc	8220
cagaagggtg	agcgagggtc	ccccggagag	agagtgggtg	gggctcctgg	ggtccctgga	8280
gctcctggcg	agagagggga	gcagggggcgg	ccagggcctg	ccggctcctg	aggcgagaag	8340
ggagaagctg	cactgacgga	ggatgacatc	cggggccttg	tgcgccaaga	gatgagtcag	8400
cactgtgcct	gccaggggca	gttcacgcga	tctggatcac	gacccctccc	tagttatgct	8460
gcagacactg	ccggctccca	gctccatgct	gtgcctgtgc	tccgcgtctc	tcagtcagag	8520
gaggaagagc	gggtaccccc	tgaggatgat	gagtactctg	aatactccga	gtattctgtg	8580
gaggagtacc	aggaccctga	agctccttgg	gatagtgatg	accctgttc	cctgccactg	8640
gatgagggct	cctgcaactgc	ctacaccctg	cgctggtacc	atcgggctgt	gacaggcgagc	8700
acagaggcct	gtcacccctt	tgtctatggt	ggctgtggag	ggaatgcca	ccgttttggg	8760
acccgtgagg	cctgcgagcg	ccgctgcccc	ccccgggtgg	tccagagcca	ggggacaggt	8820
actgcccagg	acggaagcgg	agtgaacacg	actttgaatt	ttgaccttct	caagttggcg	8880
ggagacgtgg	agtccaaccc	tggacctacc	tcctcggggc	ctggaccccc	gttcctgctg	8940
ctgctgccgc	tgctgctgcc	ccctgcggcc	tcagcctccg	accggccccg	gggcccagagc	9000
ccggtcaacc	cagagaagct	gctggtgatc	actgtggcca	cagctgaaac	cgaggggtac	9060
ctgcgtttcc	tgcgctctgc	ggagtcttct	aactacactg	tgcggaccct	gggcctggga	9120
gaggagtggc	gaggggggtga	tgtggctcga	acagttgggtg	gaggacagaa	ggtccgggtg	9180
ttaaagaagg	aaatggagaa	atacgctgac	cgggaggata	tgatcatcat	gtttgtggat	9240
agctacgacg	tgattctggc	cggcagcccc	acagagctgc	tgaagaagtt	cgtccagagt	9300
ggcagccgcc	tgctcttctc	tgcagagagc	ttctgtctggc	ccgagtgggg	gctggcggag	9360
cagtaccctg	agggtgggcac	ggggaaagcgc	ttcctcaatt	ctgggtggatt	catcggtttt	9420
gccaccacca	tccaccaa	cgtgcgccag	tggaaagtaca	aggatgatga	cgacgaccag	9480

```

ctgttctaca cacggctcta cctggaccca ggactgaggg agaaactcag ccttaatctg 9540
gatcataagt ctcggatctt tcagaacctc aacgggggctt tagatgaagt ggtttttaaag 9600
tttgatcgga accgtgtgcg tatccggaac gtggcctacg acacgctccc cattgtggtc 9660
catggaaacg gtcccaactaa gctgcagctc aactacctgg gaaactacgt ccccaatggc 9720
tggactcctg agggaggctg tggcttctgc aaccaggacc ggaggacact cccgggggggg 9780
cagcctcccc cccgggtgtt tctggccgtg tttgtggaac agcctactcc gtttctgccc 9840
cgcttcctgc agcggctgct actcctggac tatccccccg acagggtcac ccttttctg 9900
cacaacaacg aggtcttcca tgaacccac atcgtgact cctggccgca gctccaggac 9960
cacttctcag ctgtgaagct cgtggggccg gaggaggctc tgagcccagg cgaggccagg 10020
gacatggcca tggacctgtg tcggcaggac cccgagtgtg agttctactt cagcctggac 10080
gccgacgctg tcctcaccaa cctgcagacc ctgctatcc tcattgagga gaacaggaag 10140
gtgatcgccc ccatgctgtc ccgccacggc aagctgtggt ccaacttctg gggcgccctg 10200
agccccgatg agtactacgc ccgctccgag gactacgtgg agctggtgca gcggaagcga 10260
gtgggtgtgt ggaatgtacc atacatctcc caggcctatg tgatccgggg tgataccctg 10320
cggatggagc tgccccagag ggatgtgttc tcgggcagtg acacagaccc ggacatggcc 10380
ttctgtaaga gctttcgaga caaggcatc ttctccatc tgagcaatca gcatgaattt 10440
ggccggctcc tggccacttc cagatacgac acggagcacc tgcaccccga cctctggcag 10500
atcttcgaca accccgtcga ctggaaggag cagtacatcc acgagaacta cagccggggc 10560
ctggaagggg aaggaatcgt ggagcagcca tgcccggacg tgtactgggt cccactgctg 10620
tcagaacaaa tgtgtgatga gctgggtggca gagatggagc actacggcca gtggtcaggc 10680
ggccggcatg aggattcaag gctggctgga ggctacgaga atgtgccac cgtggacatc 10740
cacatgaagc aggtggggta cgaggaccag tggctgcagc tgctgcggac gtatgtgggc 10800
cccattgacc agagcctgtt tcccggttac cacaccaagg cgcgggcggt gatgaacttt 10860
gtggttcgct accggccaga cgagcagccg tctctgcggc cacaccacga ctcatccacc 10920
ttcacctca acgttgccct caaccacaag ggcttgact atgagggagg tggctgccgc 10980
ttcctgcgct acgactgtgt gatctcctcc ccgaggaagg gctgggcact cctgcacccc 11040
ggccgcctca cccactacca cgaggggctg ccaacgacct ggggcacacg ctacatcatg 11100
gtgtcctttg tcgaccctg a 11121

```

<210> 26

<211> 3706

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 26

```

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

```

Leu	Gly	Ser	Gly	Gly	Asp	Val	Ile	Arg	Ala	Ile	Arg	Glu	Leu	Ser	Tyr	100	105	110
Lys	Gly	Gly	Asn	Thr	Arg	Thr	Gly	Ala	Ala	Ile	Leu	His	Val	Ala	Asp	115	120	125
His	Val	Phe	Leu	Pro	Gln	Leu	Ala	Arg	Pro	Gly	Val	Pro	Lys	Val	Cys	130	135	140
Ile	Leu	Ile	Thr	Asp	Gly	Lys	Ser	Gln	Asp	Leu	Val	Asp	Thr	Ala	Ala	145	150	155
Gln	Arg	Leu	Lys	Gly	Gln	Gly	Val	Lys	Leu	Phe	Ala	Val	Gly	Ile	Lys	165	170	175
Asn	Ala	Asp	Pro	Glu	Glu	Leu	Lys	Arg	Val	Ala	Ser	Gln	Pro	Thr	Ser	180	185	190
Asp	Phe	Phe	Phe	Phe	Val	Asn	Asp	Phe	Ser	Ile	Leu	Arg	Thr	Leu	Leu	195	200	205
Pro	Leu	Val	Ser	Arg	Arg	Val	Cys	Thr	Thr	Ala	Gly	Gly	Val	Pro	Val	210	215	220
Thr	Arg	Pro	Pro	Asp	Asp	Ser	Thr	Ser	Ala	Pro	Arg	Asp	Leu	Val	Leu	225	230	235
Ser	Glu	Pro	Ser	Ser	Gln	Ser	Leu	Arg	Val	Gln	Trp	Thr	Ala	Ala	Ser	245	250	255
Gly	Pro	Val	Thr	Gly	Tyr	Lys	Val	Gln	Tyr	Thr	Pro	Leu	Thr	Gly	Leu	260	265	270
Gly	Gln	Pro	Leu	Pro	Ser	Glu	Arg	Gln	Glu	Val	Asn	Val	Pro	Ala	Gly	275	280	285
Glu	Thr	Ser	Val	Arg	Leu	Arg	Gly	Leu	Arg	Pro	Leu	Thr	Glu	Tyr	Gln	290	295	300
Val	Thr	Val	Ile	Ala	Leu	Tyr	Ala	Asn	Ser	Ile	Gly	Glu	Ala	Val	Ser	305	310	315
Gly	Thr	Ala	Arg	Thr	Thr	Ala	Leu	Glu	Gly	Pro	Glu	Leu	Thr	Ile	Gln	325	330	335
Asn	Thr	Thr	Ala	His	Ser	Leu	Leu	Val	Ala	Trp	Arg	Ser	Val	Pro	Gly	340	345	350
Ala	Thr	Gly	Tyr	Arg	Val	Thr	Trp	Arg	Val	Leu	Ser	Gly	Gly	Pro	Thr	355	360	365
Gln	Gln	Gln	Glu	Leu	Gly	Pro	Gly	Gln	Gly	Ser	Val	Leu	Leu	Arg	Asp	370	375	380
Leu	Glu	Pro	Gly	Thr	Asp	Tyr	Glu	Val	Thr	Val	Ser	Thr	Leu	Phe	Gly	385	390	395
Arg	Ser	Val	Gly	Pro	Ala	Thr	Ser	Leu	Met	Ala	Arg	Thr	Asp	Ala	Ser	405	410	415
Val	Glu	Gln	Thr	Leu	Arg	Pro	Val	Ile	Leu	Gly	Pro	Thr	Ser	Ile	Leu	420	425	430
Leu	Ser	Trp	Asn	Leu	Val	Pro	Glu	Ala	Arg	Gly	Tyr	Arg	Leu	Glu	Trp	435	440	445
Arg	Arg	Glu	Thr	Gly	Leu	Glu	Pro	Pro	Gln	Lys	Val	Val	Leu	Pro	Ser	450	455	460
Asp	Val	Thr	Arg	Tyr	Gln	Leu	Asp	Gly	Leu	Gln	Pro	Gly	Thr	Glu	Tyr	465	470	475
Arg	Leu	Thr	Leu	Tyr	Thr	Leu	Leu	Glu	Gly	His	Glu	Val	Ala	Thr	Pro	485	490	495

Ala	Thr	Val	Val	Pro	Thr	Gly	Pro	Glu	Leu	Pro	Val	Ser	Pro	Val	Thr	500	505	510
Asp	Leu	Gln	Ala	Thr	Glu	Leu	Pro	Gly	Gln	Arg	Val	Arg	Val	Ser	Trp	515	520	525
Ser	Pro	Val	Pro	Gly	Ala	Thr	Gln	Tyr	Arg	Ile	Ile	Val	Arg	Ser	Thr	530	535	540
Gln	Gly	Val	Glu	Arg	Thr	Leu	Val	Leu	Pro	Gly	Ser	Gln	Thr	Ala	Phe	545	550	555
Asp	Leu	Asp	Asp	Val	Gln	Ala	Gly	Leu	Ser	Tyr	Thr	Val	Arg	Val	Ser	565	570	575
Ala	Arg	Val	Gly	Pro	Arg	Glu	Gly	Ser	Ala	Ser	Val	Leu	Thr	Val	Arg	580	585	590
Arg	Glu	Pro	Glu	Thr	Pro	Leu	Ala	Val	Pro	Gly	Leu	Arg	Val	Val	Val	595	600	605
Ser	Asp	Ala	Thr	Arg	Val	Arg	Val	Ala	Trp	Gly	Pro	Val	Pro	Gly	Ala	610	615	620
Ser	Gly	Phe	Arg	Ile	Ser	Trp	Ser	Thr	Gly	Ser	Gly	Pro	Glu	Ser	Ser	625	630	635
Gln	Thr	Leu	Pro	Pro	Asp	Ser	Thr	Ala	Thr	Asp	Ile	Thr	Gly	Leu	Gln	645	650	655
Pro	Gly	Thr	Thr	Tyr	Gln	Val	Ala	Val	Ser	Val	Leu	Arg	Gly	Arg	Glu	660	665	670
Glu	Gly	Pro	Ala	Ala	Val	Ile	Val	Ala	Arg	Thr	Asp	Pro	Leu	Gly	Pro	675	680	685
Val	Arg	Thr	Val	His	Val	Thr	Gln	Ala	Ser	Ser	Ser	Ser	Val	Thr	Ile	690	695	700
Thr	Trp	Thr	Arg	Val	Pro	Gly	Ala	Thr	Gly	Tyr	Arg	Val	Ser	Trp	His	705	710	715
Ser	Ala	His	Gly	Pro	Glu	Lys	Ser	Gln	Leu	Val	Ser	Gly	Glu	Ala	Thr	725	730	735
Val	Ala	Glu	Leu	Asp	Gly	Leu	Glu	Pro	Asp	Thr	Glu	Tyr	Thr	Val	His	740	745	750
Val	Arg	Ala	His	Val	Ala	Gly	Val	Asp	Gly	Pro	Pro	Ala	Ser	Val	Val	755	760	765
Val	Arg	Thr	Ala	Pro	Glu	Pro	Val	Gly	Arg	Val	Ser	Arg	Leu	Gln	Ile	770	775	780
Leu	Asn	Ala	Ser	Ser	Asp	Val	Leu	Arg	Ile	Thr	Trp	Val	Gly	Val	Thr	785	790	795
Gly	Ala	Thr	Ala	Tyr	Arg	Leu	Ala	Trp	Gly	Arg	Ser	Glu	Gly	Gly	Pro	805	810	815
Met	Arg	His	Gln	Ile	Leu	Pro	Gly	Asn	Thr	Asp	Ser	Ala	Glu	Ile	Arg	820	825	830
Gly	Leu	Glu	Gly	Gly	Val	Ser	Tyr	Ser	Val	Arg	Val	Thr	Ala	Leu	Val	835	840	845
Gly	Asp	Arg	Glu	Gly	Thr	Pro	Val	Ser	Ile	Val	Val	Thr	Thr	Pro	Pro	850	855	860
Glu	Ala	Pro	Pro	Ala	Leu	Gly	Thr	Leu	His	Val	Val	Gln	Arg	Gly	Glu	865	870	875
His	Ser	Leu	Arg	Leu	Arg	Trp	Glu	Pro	Val	Pro	Arg	Ala	Gln	Gly	Phe	885	890	895

Leu Leu His Trp Gln Pro Glu Gly Gly Gln Glu Gln Ser Arg Val Leu
 900 905 910
 Gly Pro Glu Leu Ser Ser Tyr His Leu Asp Gly Leu Glu Pro Ala Thr
 915 920 925
 Gln Tyr Arg Val Arg Leu Ser Val Leu Gly Pro Ala Gly Glu Gly Pro
 930 935 940
 Ser Ala Glu Val Thr Ala Arg Thr Glu Ser Pro Arg Val Pro Ser Ile
 945 950 955 960
 Glu Leu Arg Val Val Asp Thr Ser Ile Asp Ser Val Thr Leu Ala Trp
 965 970 975
 Thr Pro Val Ser Arg Ala Ser Ser Tyr Ile Leu Ser Trp Arg Pro Leu
 980 985 990
 Arg Gly Pro Gly Gln Glu Val Pro Gly Ser Pro Gln Thr Leu Pro Gly
 995 1000 1005
 Ile Ser Ser Ser Gln Arg Val Thr Gly Leu Glu Pro Gly Val Ser Tyr
 1010 1015 1020
 Ile Phe Ser Leu Thr Pro Val Leu Asp Gly Val Arg Gly Pro Glu Ala
 1025 1030 1035 1040
 Ser Val Thr Gln Thr Pro Val Cys Pro Arg Gly Leu Ala Asp Val Val
 1045 1050 1055
 Phe Leu Pro His Ala Thr Gln Asp Asn Ala His Arg Ala Glu Ala Thr
 1060 1065 1070
 Arg Arg Val Leu Glu Arg Leu Val Leu Ala Leu Gly Pro Leu Gly Pro
 1075 1080 1085
 Gln Ala Val Gln Val Gly Leu Leu Ser Tyr Ser His Arg Pro Ser Pro
 1090 1095 1100
 Leu Phe Pro Leu Asn Gly Ser His Asp Leu Gly Ile Ile Leu Gln Arg
 1105 1110 1115 1120
 Ile Arg Asp Met Pro Tyr Met Asp Pro Ser Gly Asn Asn Leu Gly Thr
 1125 1130 1135
 Ala Val Val Thr Ala His Arg Tyr Met Leu Ala Pro Asp Ala Pro Gly
 1140 1145 1150
 Arg Arg Gln His Val Pro Gly Val Met Val Leu Leu Val Asp Glu Pro
 1155 1160 1165
 Leu Arg Gly Asp Ile Phe Ser Pro Ile Arg Glu Ala Gln Ala Ser Gly
 1170 1175 1180
 Leu Asn Val Val Met Leu Gly Met Ala Gly Ala Asp Pro Glu Gln Leu
 1185 1190 1195 1200
 Arg Arg Leu Ala Pro Gly Met Asp Ser Val Gln Thr Phe Phe Ala Val
 1205 1210 1215
 Asp Asp Gly Pro Ser Leu Asp Gln Ala Val Ser Gly Leu Ala Thr Ala
 1220 1225 1230
 Leu Cys Gln Ala Ser Phe Thr Thr Gln Pro Arg Pro Glu Pro Cys Pro
 1235 1240 1245
 Val Tyr Cys Pro Lys Gly Gln Lys Gly Glu Pro Gly Glu Met Gly Leu
 1250 1255 1260
 Arg Gly Gln Val Gly Pro Pro Gly Asp Pro Gly Leu Pro Gly Arg Thr
 1265 1270 1275 1280
 Gly Ala Pro Gly Pro Gln Gly Pro Pro Gly Ser Ala Thr Ala Lys Gly
 1285 1290 1295

Glu Arg Gly Phe Pro Gly Ala Asp Gly Arg Pro Gly Ser Pro Gly Arg	1300	1305	1310
Ala Gly Asn Pro Gly Thr Pro Gly Ala Pro Gly Leu Lys Gly Ser Pro	1315	1320	1325
Gly Leu Pro Gly Pro Arg Gly Asp Pro Gly Glu Arg Gly Pro Arg Gly	1330	1335	1340
Pro Lys Gly Glu Pro Gly Ala Pro Gly Gln Val Ile Gly Gly Glu Gly	1345	1350	1355
Pro Gly Leu Pro Gly Arg Lys Gly Asp Pro Gly Pro Ser Gly Pro Pro	1365	1370	1375
Gly Pro Arg Gly Pro Leu Gly Asp Pro Gly Pro Arg Gly Pro Pro Gly	1380	1385	1390
Leu Pro Gly Thr Ala Met Lys Gly Asp Lys Gly Asp Arg Gly Glu Arg	1395	1400	1405
Gly Pro Pro Gly Pro Gly Glu Gly Gly Ile Ala Pro Gly Glu Pro Gly	1410	1415	1420
Leu Pro Gly Leu Pro Gly Ser Pro Gly Pro Gln Gly Pro Val Gly Pro	1425	1430	1435
Pro Gly Lys Lys Gly Glu Lys Gly Asp Ser Glu Asp Gly Ala Pro Gly	1445	1450	1455
Leu Pro Gly Gln Pro Gly Ser Pro Gly Glu Gln Gly Pro Arg Gly Pro	1460	1465	1470
Pro Gly Ala Ile Gly Pro Lys Gly Asp Arg Gly Phe Pro Gly Pro Leu	1475	1480	1485
Gly Glu Ala Gly Glu Lys Gly Glu Arg Gly Pro Pro Gly Pro Ala Gly	1490	1495	1500
Ser Arg Gly Leu Pro Gly Val Ala Gly Arg Pro Gly Ala Lys Gly Pro	1505	1510	1515
Glu Gly Pro Pro Gly Pro Thr Gly Arg Gln Gly Glu Lys Gly Glu Pro	1525	1530	1535
Gly Arg Pro Gly Asp Pro Ala Val Val Gly Pro Ala Val Ala Gly Pro	1540	1545	1550
Lys Gly Glu Lys Gly Asp Val Gly Pro Ala Gly Pro Arg Gly Ala Thr	1555	1560	1565
Gly Val Gln Gly Glu Arg Gly Pro Pro Gly Leu Val Leu Pro Gly Asp	1570	1575	1580
Pro Gly Pro Lys Gly Asp Pro Gly Asp Arg Gly Pro Ile Gly Leu Thr	1585	1590	1595
Gly Arg Ala Gly Pro Pro Gly Asp Ser Gly Pro Pro Gly Glu Lys Gly	1605	1610	1615
Asp Pro Gly Arg Pro Gly Pro Pro Gly Pro Val Gly Pro Arg Gly Arg	1620	1625	1630
Asp Gly Glu Val Gly Glu Lys Gly Asp Glu Gly Pro Pro Gly Asp Pro	1635	1640	1645
Gly Leu Pro Gly Lys Ala Gly Glu Arg Gly Leu Arg Gly Ala Pro Gly	1650	1655	1660
Val Arg Gly Pro Val Gly Glu Lys Gly Asp Gln Gly Asp Pro Gly Glu	1665	1670	1675
Asp Gly Arg Asn Gly Ser Pro Gly Ser Ser Gly Pro Lys Gly Asp Arg	1685	1690	1695

Gly 1700	Glu 1715	Pro 1730	Gly 1745	Pro 1750	Pro 1765	Gly 1775	Pro 1785	Gly 1795	Pro 1805	Gly 1810	Pro 1825	Asn 1835	Gly 1845	Glu 1855	Pro 1865	Pro 1875	Gly 1885	Val 1890	Pro 1905	Lys 1915	Gly 1920	Glu 1930	Ser 1940	Ala 1955	Ser 1970	Gly 1985	Glu 1995	Pro 2000
Pro 1705	Ala 1715	Arg 1730	Ile 1745	Glu 1750	Arg 1765	Phe 1775	Arg 1785	Gly 1795	Pro 1805	Pro 1810	Pro 1825	Arg 1835	Gly 1845	Leu 1855	Arg 1865	Pro 1875	Pro 1885	Pro 1895	Gly 1905	Glu 1910	Leu 1925	Val 1935	Ala 1945	Arg 1955	Leu 1970	Gln 1985	Arg 1995	Pro 2000
Pro 1710	Arg 1720	Gly 1735	Glu 1745	Pro 1755	Gly 1765	Pro 1770	Pro 1780	Pro 1790	Pro 1800	Pro 1815	Pro 1820	Pro 1830	Pro 1840	Pro 1850	Pro 1860	Pro 1870	Pro 1880	Pro 1890	Pro 1900	Pro 1915	Pro 1925	Pro 1930	Pro 1940	Pro 1950	Pro 1965	Pro 1980	Pro 1995	Pro 2000
Pro 1715	Pro 1725	Pro 1735	Pro 1745	Pro 1755	Pro 1765	Pro 1775	Pro 1785	Pro 1795	Pro 1805	Pro 1815	Pro 1820	Pro 1835	Pro 1845	Pro 1855	Pro 1865	Pro 1875	Pro 1885	Pro 1895	Pro 1905	Pro 1915	Pro 1925	Pro 1935	Pro 1945	Pro 1955	Pro 1970	Pro 1985	Pro 1995	Pro 2000
Pro 1720	Pro 1730	Pro 1740	Pro 1750	Pro 1760	Pro 1770	Pro 1780	Pro 1790	Pro 1800	Pro 1810	Pro 1820	Pro 1830	Pro 1840	Pro 1850	Pro 1860	Pro 1870	Pro 1880	Pro 1890	Pro 1900	Pro 1910	Pro 1920	Pro 1930	Pro 1940	Pro 1950	Pro 1960	Pro 1975	Pro 1990	Pro 2000	Pro 2005
Pro 1725	Pro 1735	Pro 1745	Pro 1755	Pro 1765	Pro 1775	Pro 1785	Pro 1795	Pro 1805	Pro 1815	Pro 1825	Pro 1835	Pro 1845	Pro 1855	Pro 1865	Pro 1875	Pro 1885	Pro 1895	Pro 1905	Pro 1915	Pro 1925	Pro 1935	Pro 1945	Pro 1955	Pro 1965	Pro 1980	Pro 1995	Pro 2000	Pro 2005
Pro 1730	Pro 1740	Pro 1750	Pro 1760	Pro 1770	Pro 1780	Pro 1790	Pro 1800	Pro 1810	Pro 1820	Pro 1830	Pro 1840	Pro 1850	Pro 1860	Pro 1870	Pro 1880	Pro 1890	Pro 1900	Pro 1910	Pro 1920	Pro 1930	Pro 1940	Pro 1950	Pro 1960	Pro 1970	Pro 1985	Pro 1995	Pro 2000	Pro 2005
Pro 1735	Pro 1745	Pro 1755	Pro 1765	Pro 1775	Pro 1785	Pro 1795	Pro 1805	Pro 1815	Pro 1825	Pro 1835	Pro 1845	Pro 1855	Pro 1865	Pro 1875	Pro 1885	Pro 1895	Pro 1905	Pro 1915	Pro 1925	Pro 1935	Pro 1945	Pro 1955	Pro 1965	Pro 1975	Pro 1990	Pro 2000	Pro 2005	Pro 2010
Pro 1740	Pro 1750	Pro 1760	Pro 1770	Pro 1780	Pro 1790	Pro 1800	Pro 1810	Pro 1820	Pro 1830	Pro 1840	Pro 1850	Pro 1860	Pro 1870	Pro 1880	Pro 1890	Pro 1900	Pro 1910	Pro 1920	Pro 1930	Pro 1940	Pro 1950	Pro 1960	Pro 1970	Pro 1980	Pro 1995	Pro 2000	Pro 2005	Pro 2010
Pro 1745	Pro 1755	Pro 1765	Pro 1775	Pro 1785	Pro 1795	Pro 1805	Pro 1815	Pro 1825	Pro 1835	Pro 1845	Pro 1855	Pro 1865	Pro 1875	Pro 1885	Pro 1895	Pro 1905	Pro 1915	Pro 1925	Pro 1935	Pro 1945	Pro 1955	Pro 1965	Pro 1975	Pro 1985	Pro 1995	Pro 2000	Pro 2005	Pro 2010
Pro 1750	Pro 1760	Pro 1770	Pro 1780	Pro 1790	Pro 1800	Pro 1810	Pro 1820	Pro 1830	Pro 1840	Pro 1850	Pro 1860	Pro 1870	Pro 1880	Pro 1890	Pro 1900	Pro 1910	Pro 1920	Pro 1930	Pro 1940	Pro 1950	Pro 1960	Pro 1970	Pro 1980	Pro 1990	Pro 1995	Pro 2000	Pro 2005	Pro 2010
Pro 1755	Pro 1765	Pro 1775	Pro 1785	Pro 1795	Pro 1805	Pro 1815	Pro 1825	Pro 1835	Pro 1845	Pro 1855	Pro 1865	Pro 1875	Pro 1885	Pro 1895	Pro 1905	Pro 1915	Pro 1925	Pro 1935	Pro 1945	Pro 1955	Pro 1965	Pro 1975	Pro 1985	Pro 1995	Pro 2000	Pro 2005	Pro 2010	Pro 2015
Pro 1760	Pro 1770	Pro 1780	Pro 1790	Pro 1800	Pro 1810	Pro 1820	Pro 1830	Pro 1840	Pro 1850	Pro 1860	Pro 1870	Pro 1880	Pro 1890	Pro 1900	Pro 1910	Pro 1920	Pro 1930	Pro 1940										

Asp	Glu	Pro	Gly	Pro	Gly	Leu	Ser	Gly	Glu	Gln	Gly	Pro	Pro	Gly	Leu	2100	2105	2110	
Lys	Gly	Ala	Lys	Gly	Glu	Pro	Gly	Ser	Asn	Gly	Asp	Gln	Gly	Pro	Lys	2115	2120	2125	
Gly	Asp	Arg	Gly	Val	Pro	Gly	Ile	Lys	Gly	Asp	Arg	Gly	Glu	Pro	Gly	2130	2135	2140	
Pro	Arg	Gly	Gln	Asp	Gly	Asn	Pro	Gly	Leu	Pro	Gly	Glu	Arg	Gly	Met	2145	2150	2155	2160
Ala	Gly	Pro	Glu	Gly	Lys	Pro	Gly	Leu	Gln	Gly	Pro	Arg	Gly	Pro	Pro	2165	2170	2175	
Gly	Pro	Val	Gly	Gly	His	Gly	Asp	Pro	Gly	Pro	Pro	Gly	Ala	Pro	Gly	2180	2185	2190	
Leu	Ala	Gly	Pro	Ala	Gly	Pro	Gln	Gly	Pro	Ser	Gly	Leu	Lys	Gly	Glu	2195	2200	2205	
Pro	Gly	Glu	Thr	Gly	Pro	Pro	Gly	Arg	Gly	Leu	Thr	Gly	Pro	Thr	Gly	2210	2215	2220	
Ala	Val	Gly	Leu	Pro	Gly	Pro	Pro	Gly	Pro	Ser	Gly	Leu	Val	Gly	Pro	2225	2230	2235	2240
Gln	Gly	Ser	Pro	Gly	Leu	Pro	Gly	Gln	Val	Gly	Glu	Thr	Gly	Lys	Pro	2245	2250	2255	
Gly	Ala	Pro	Gly	Arg	Asp	Gly	Ala	Ser	Gly	Lys	Asp	Gly	Asp	Arg	Gly	2260	2265	2270	
Ser	Pro	Gly	Val	Pro	Gly	Ser	Pro	Gly	Leu	Pro	Gly	Pro	Val	Gly	Pro	2275	2280	2285	
Lys	Gly	Glu	Pro	Gly	Pro	Thr	Gly	Ala	Pro	Gly	Gln	Ala	Val	Val	Gly	2290	2295	2300	
Leu	Pro	Gly	Ala	Lys	Gly	Glu	Lys	Gly	Ala	Pro	Gly	Gly	Leu	Ala	Gly	2305	2310	2315	2320
Asp	Leu	Val	Gly	Glu	Pro	Gly	Ala	Lys	Gly	Asp	Arg	Gly	Leu	Pro	Gly	2325	2330	2335	
Pro	Arg	Gly	Glu	Lys	Gly	Glu	Ala	Gly	Arg	Ala	Gly	Glu	Pro	Gly	Asp	2340	2345	2350	
Pro	Gly	Glu	Asp	Gly	Gln	Lys	Gly	Ala	Pro	Gly	Pro	Lys	Gly	Phe	Lys	2355	2360	2365	
Gly	Asp	Pro	Gly	Val	Gly	Val	Pro	Gly	Ser	Pro	Gly	Pro	Pro	Gly	Pro	2370	2375	2380	
Pro	Gly	Val	Lys	Gly	Asp	Leu	Gly	Leu	Pro	Gly	Leu	Pro	Gly	Ala	Pro	2385	2390	2395	2400
Gly	Val	Val	Gly	Phe	Pro	Gly	Gln	Thr	Gly	Pro	Arg	Gly	Glu	Met	Gly	2405	2410	2415	
Gln	Pro	Gly	Pro	Ser	Gly	Glu	Arg	Gly	Leu	Ala	Gly	Pro	Pro	Gly	Arg	2420	2425	2430	
Glu	Gly	Ile	Pro	Gly	Pro	Leu	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Ser	Val	2435	2440	2445	
Gly	Pro	Pro	Gly	Ala	Ser	Gly	Leu	Lys	Gly	Asp	Lys	Gly	Asp	Pro	Gly	2450	2455	2460	
Val	Gly	Leu	Pro	Gly	Pro	Arg	Gly	Glu	Arg	Gly	Glu	Pro	Gly	Ile	Arg	2465	2470	2475	2480
Gly	Glu	Asp	Gly	Arg	Pro	Gly	Gln	Glu	Gly	Pro	Arg	Gly	Leu	Thr	Gly	2485	2490	2495	

Pro	Pro	Gly	Ser	Arg	Gly	Glu	Arg	Gly	Glu	Lys	Gly	Asp	Val	Gly	Ser
			2500				2505					2510			
Ala	Gly	Leu	Lys	Gly	Asp	Lys	Gly	Asp	Ser	Ala	Val	Ile	Leu	Gly	Pro
			2515				2520					2525			
Pro	Gly	Pro	Arg	Gly	Ala	Lys	Gly	Asp	Met	Gly	Glu	Arg	Gly	Pro	Arg
			2530				2535					2540			
Gly	Leu	Asp	Gly	Asp	Lys	Gly	Pro	Arg	Gly	Asp	Asn	Gly	Asp	Pro	Gly
			2545				2550					2555			
Asp	Lys	Gly	Ser	Lys	Gly	Glu	Pro	Gly	Asp	Lys	Gly	Ser	Ala	Gly	Leu
			2565				2570					2575			
Pro	Gly	Leu	Arg	Gly	Leu	Leu	Gly	Pro	Gln	Gly	Gln	Pro	Gly	Ala	Ala
			2580				2585					2590			
Gly	Ile	Pro	Gly	Asp	Pro	Gly	Ser	Pro	Gly	Lys	Asp	Gly	Val	Pro	Gly
			2595				2600					2605			
Ile	Arg	Gly	Glu	Lys	Gly	Asp	Val	Gly	Phe	Met	Gly	Pro	Arg	Gly	Leu
			2610				2615					2620			
Lys	Gly	Glu	Arg	Gly	Val	Lys	Gly	Ala	Cys	Gly	Leu	Asp	Gly	Glu	Lys
			2625				2630					2635			
Gly	Asp	Lys	Gly	Glu	Ala	Gly	Pro	Pro	Gly	Arg	Pro	Gly	Leu	Ala	Gly
			2645				2650					2655			
His	Lys	Gly	Glu	Met	Gly	Glu	Pro	Gly	Val	Pro	Gly	Gln	Ser	Gly	Ala
			2660				2665					2670			
Pro	Gly	Lys	Glu	Gly	Leu	Ile	Gly	Pro	Lys	Gly	Asp	Arg	Gly	Phe	Asp
			2675				2680					2685			
Gly	Gln	Pro	Gly	Pro	Lys	Gly	Asp	Gln	Gly	Glu	Lys	Gly	Glu	Arg	Gly
			2690				2695					2700			
Thr	Pro	Gly	Ile	Gly	Gly	Phe	Pro	Gly	Pro	Ser	Gly	Asn	Asp	Gly	Ser
			2705				2710					2715			
Ala	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Ser	Val	Gly	Pro	Arg	Gly	Pro	Glu
			2725				2730					2735			
Gly	Leu	Gln	Gly	Gln	Lys	Gly	Glu	Arg	Gly	Pro	Pro	Gly	Glu	Arg	Val
			2740				2745					2750			
Val	Gly	Ala	Pro	Gly	Val	Pro	Gly	Ala	Pro	Gly	Glu	Arg	Gly	Glu	Gln
			2755				2760					2765			
Gly	Arg	Pro	Gly	Pro	Ala	Gly	Pro	Arg	Gly	Glu	Lys	Gly	Glu	Ala	Ala
			2770				2775					2780			
Leu	Thr	Glu	Asp	Asp	Ile	Arg	Gly	Phe	Val	Arg	Gln	Glu	Met	Ser	Gln
			2785				2790					2795			
His	Cys	Ala	Cys	Gln	Gly	Gln	Phe	Ile	Ala	Ser	Gly	Ser	Arg	Pro	Leu
			2805				2810					2815			
Pro	Ser	Tyr	Ala	Ala	Asp	Thr	Ala	Gly	Ser	Gln	Leu	His	Ala	Val	Pro
			2820				2825					2830			
Val	Leu	Arg	Val	Ser	His	Ala	Glu	Glu	Glu	Glu	Arg	Val	Pro	Pro	Glu
			2835				2840					2845			
Asp	Asp	Glu	Tyr	Ser	Glu	Tyr	Ser	Glu	Tyr	Ser	Val	Glu	Glu	Tyr	Gln
			2850				2855					2860			
Asp	Pro	Glu	Ala	Pro	Trp	Asp	Ser	Asp	Asp	Pro	Cys	Ser	Leu	Pro	Leu
			2865				2870					2875			
Asp	Glu	Gly	Ser	Cys	Thr	Ala	Tyr	Thr	Leu	Arg	Trp	Tyr			

Val	Thr	Gly	Ser	Thr	Glu	Ala	Cys	His	Pro	Phe	Val	Tyr	Gly	Gly	Cys
					2900			2905						2910	
Gly	Gly	Asn	Ala	Asn	Arg	Phe	Gly	Thr	Arg	Glu	Ala	Cys	Glu	Arg	Arg
		2915					2920					2925			
Cys	Pro	Pro	Arg	Val	Val	Gln	Ser	Gln	Gly	Thr	Gly	Thr	Ala	Gln	Asp
	2930					2935					2940				
Gly	Ser	Gly	Val	Lys	Gln	Thr	Leu	Asn	Phe	Asp	Leu	Leu	Lys	Leu	Ala
2945					2950					2955					2960
Gly	Asp	Val	Glu	Ser	Asn	Pro	Gly	Pro	Thr	Ser	Ser	Gly	Pro	Gly	Pro
			2965						2970					2975	
Arg	Phe	Leu	Leu	Leu	Leu	Pro	Leu	Leu	Leu	Pro	Pro	Ala	Ala	Ser	Ala
			2980					2985					2990		
Ser	Asp	Arg	Pro	Arg	Gly	Arg	Asp	Pro	Val	Asn	Pro	Glu	Lys	Leu	Leu
	2995						3000					3005			
Val	Ile	Thr	Val	Ala	Thr	Ala	Glu	Thr	Glu	Gly	Tyr	Leu	Arg	Phe	Leu
	3010					3015					3020				
Arg	Ser	Ala	Glu	Phe	Phe	Asn	Tyr	Thr	Val	Arg	Thr	Leu	Gly	Leu	Gly
3025					3030					3035					3040
Glu	Glu	Trp	Arg	Gly	Gly	Asp	Val	Ala	Arg	Thr	Val	Gly	Gly	Gly	Gln
				3045					3050					3055	
Lys	Val	Arg	Trp	Leu	Lys	Lys	Glu	Met	Glu	Lys	Tyr	Ala	Asp	Arg	Glu
			3060					3065					3070		
Asp	Met	Ile	Ile	Met	Phe	Val	Asp	Ser	Tyr	Asp	Val	Ile	Leu	Ala	Gly
	3075						3080					3085			
Ser	Pro	Thr	Glu	Leu	Leu	Lys	Lys	Phe	Val	Gln	Ser	Gly	Ser	Arg	Leu
	3090					3095					3100				
Leu	Phe	Ser	Ala	Glu	Ser	Phe	Cys	Trp	Pro	Glu	Trp	Gly	Leu	Ala	Glu
3105					3110					3115					3120
Gln	Tyr	Pro	Glu	Val	Gly	Thr	Gly	Lys	Arg	Phe	Leu	Asn	Ser	Gly	Gly
			3125						3130					3135	
Phe	Ile	Gly	Phe	Ala	Thr	Thr	Ile	His	Gln	Ile	Val	Arg	Gln	Trp	Lys
	3140							3145					3150		
Tyr	Lys	Asp	Asp	Asp	Asp	Asp	Gln	Leu	Phe	Tyr	Thr	Arg	Leu	Tyr	Leu
	3155						3160					3165			
Asp	Pro	Gly	Leu	Arg	Glu	Lys	Leu	Ser	Leu	Asn	Leu	Asp	His	Lys	Ser
	3170					3175					3180				
Arg	Ile	Phe	Gln	Asn	Leu	Asn	Gly	Ala	Leu	Asp	Glu	Val	Val	Leu	Lys
3185					3190					3195					3200
Phe	Asp	Arg	Asn	Arg	Val	Arg	Ile	Arg	Asn	Val	Ala	Tyr	Asp	Thr	Leu
			3205						3210					3215	
Pro	Ile	Val	Val	His	Gly	Asn	Gly	Pro	Thr	Lys	Leu	Gln	Leu	Asn	Tyr
			3220					3225					3230		
Leu	Gly	Asn	Tyr	Val	Pro	Asn	Gly	Trp	Thr	Pro	Glu	Gly	Gly	Cys	Gly
	3235						3240					3245			
Phe	Cys	Asn	Gln	Asp	Arg	Arg	Thr	Leu	Pro	Gly	Gly	Gln	Pro	Pro	Pro
	3250					3255					3260				
Arg	Val	Phe	Leu	Ala	Val	Phe	Val	Glu	Gln	Pro	Thr	Pro	Phe	Leu	Pro
3265					3270					3275					3280
Arg	Phe	Leu	Gln	Arg	Leu	Leu	Leu	Leu	Asp	Tyr	Pro	Pro	Asp	Arg	Val
			3285						3290					3295	

Thr	Leu	Phe	Leu	His	Asn	Asn	Glu	Val	Phe	His	Glu	Pro	His	Ile	Ala	
			3300					3305						3310		
Asp	Ser	Trp	Pro	Gln	Leu	Gln	Asp	His	Phe	Ser	Ala	Val	Lys	Leu	Val	
		3315					3320					3325				
Gly	Pro	Glu	Glu	Ala	Leu	Ser	Pro	Gly	Glu	Ala	Arg	Asp	Met	Ala	Met	
	3330					3335					3340					
Asp	Leu	Cys	Arg	Gln	Asp	Pro	Glu	Cys	Glu	Phe	Tyr	Phe	Ser	Leu	Asp	
3345				3350					3355					3360		
Ala	Asp	Ala	Val	Leu	Thr	Asn	Leu	Gln	Thr	Leu	Arg	Ile	Leu	Ile	Glu	
			3365					3370					3375			
Glu	Asn	Arg	Lys	Val	Ile	Ala	Pro	Met	Leu	Ser	Arg	His	Gly	Lys	Leu	
		3380						3385					3390			
Trp	Ser	Asn	Phe	Trp	Gly	Ala	Leu	Ser	Pro	Asp	Glu	Tyr	Tyr	Ala	Arg	
		3395				3400					3405					
Ser	Glu	Asp	Tyr	Val	Glu	Leu	Val	Gln	Arg	Lys	Arg	Val	Gly	Val	Trp	
	3410					3415					3420					
Asn	Val	Pro	Tyr	Ile	Ser	Gln	Ala	Tyr	Val	Ile	Arg	Gly	Asp	Thr	Leu	
3425				3430					3435					3440		
Arg	Met	Glu	Leu	Pro	Gln	Arg	Asp	Val	Phe	Ser	Gly	Ser	Asp	Thr	Asp	
			3445					3450						3455		
Pro	Asp	Met	Ala	Phe	Cys	Lys	Ser	Phe	Arg	Asp	Lys	Gly	Ile	Phe	Leu	
		3460						3465					3470			
His	Leu	Ser	Asn	Gln	His	Glu	Phe	Gly	Arg	Leu	Leu	Ala	Thr	Ser	Arg	
		3475					3480					3485				
Tyr	Asp	Thr	Glu	His	Leu	His	Pro	Asp	Leu	Trp	Gln	Ile	Phe	Asp	Asn	
	3490					3495					3500					
Pro	Val	Asp	Trp	Lys	Glu	Gln	Tyr	Ile	His	Glu	Asn	Tyr	Ser	Arg	Ala	
3505				3510					3515					3520		
Leu	Glu	Gly	Glu	Gly	Ile	Val	Glu	Gln	Pro	Cys	Pro	Asp	Val	Tyr	Trp	
			3525					3530					3535			
Phe	Pro	Leu	Leu	Ser	Glu	Gln	Met	Cys	Asp	Glu	Leu	Val	Ala	Glu	Met	
		3540					3545					3550				
Glu	His	Tyr	Gly	Gln	Trp	Ser	Gly	Gly	Arg	His	Glu	Asp	Ser	Arg	Leu	
	3555						3560					3565				
Ala	Gly	Gly	Tyr	Glu	Asn	Val	Pro	Thr	Val	Asp	Ile	His	Met	Lys	Gln	
	3570					3575					3580					
Val	Gly	Tyr	Glu	Asp	Gln	Trp	Leu	Gln	Leu	Leu	Arg	Thr	Tyr	Val	Gly	
3585				3590					3595					3600		
Pro	Met	Thr	Glu	Ser	Leu	Phe	Pro	Gly	Tyr	His	Thr	Lys	Ala	Arg	Ala	
			3605					3610					3615			
Val	Met	Asn	Phe	Val	Val	Arg	Tyr	Arg	Pro	Asp	Glu	Gln	Pro	Ser	Leu	
		3620						3625					3630			
Arg	Pro	His	His	Asp	Ser	Ser	Thr	Phe	Thr	Leu	Asn	Val	Ala	Leu	Asn	
		3635					3640					3645				
His	Lys	Gly	Leu	Asp	Tyr	Glu	Gly	Gly	Gly	Cys	Arg	Phe	Leu	Arg	Tyr	
	3650					3655					3660					
Asp	Cys	Val	Ile	Ser	Ser	Pro	Arg	Lys	Gly	Trp	Ala	Leu	Leu	His	Pro	
3665				3670					3675					3680		
Gly	Arg	Leu	Thr	His	Tyr	His	Glu	Gly	Leu	Pro	Thr	Thr	Trp	Gly	Thr	
			3685					3690					3695			

Arg Tyr Ile Met Val Ser Phe Val Asp Pro
3700 3705

<210> 27
<211> 11121
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 27
atgacctcct cggggcctgg accccgggttc ctgctgctgc tgccgctgct gctgccccct 60
gcggcctcag cctccgaccg gccccggggc cgagaccggg tcaaccaga gaagctgctg 120
gtgatcactg tggccacagc tgaaaccgag gggtagctgc gtttcctgcg ctctgcggag 180
ttcttcaact acactgtgcg gacctggggc ctgggagagg agtggcgagg gggtagatgtg 240
gctcgaacag ttggtggagg acagaaggctc cgggtggttaa agaaggaaat ggagaaatac 300
gctgaccggg aggatatgat catcatgttt gtggatagct acgacgtgat tctggccggc 360
agccccacag agctgctgaa gaagtctgtc cagagtggca gccgcctgct cttctctgca 420
gagagcttct gctggcccga gtgggggctg gcggagcagt accctgagggt gggcacgggg 480
aagcgcttcc tcaattctgg tggattcatc ggttttgcca ccaccatcca ccaaactctg 540
cgccagtgga agtacaagga tgatgacgac gaccagctgt tctacacacg gctctacctg 600
gacccaggac tgaggggagaa actcagcctt aatctggatc ataagtctcg gatctttcag 660
aacctcaacg gggcttttaga tgaagtgggt ttaaagtgtg atcggaaccg tgtgctgctc 720
cggaacgtgg cctacgacac gctccccatt gtggtccatg gaaacgggtc cactaagctg 780
cagctcaact acctgggaaa ctacgtcccc aatggctgga ctctgagggg aggtgtggc 840
ttctgcaacc aggaccggag gacactcccg ggggggcagc ctcccccccg ggtgtttctg 900
gccgtgtttg tggaaacagc tactccgttt ctgccccgct tcctgcagcg gctgctactc 960
ctggactatc cccccgacag ggtcaccctt ttcctgcaca acaacgaggt cttccatgaa 1020
ccccacatcg ctgactcctg gccgcagctc caggaccact tctcagctgt gaagctcgtg 1080
gggccggagg aggtctctgag ccaggcgag gccagggaca tggccatgga cctgtgtcgg 1140
caggaccccg agtgtgagtt ctacttcagc ctggacgccg acgctgtcct caccaacctg 1200
cagaccctgc gtatcctcat tgaggagaac aggaagggtg tgcccccat gctgtcccgc 1260
cacggcaagc tgttgtccaa cttctggggc gccctgagcc ccgatgagta ctacggccgc 1320
tccgaggact acgtggagct ggtgcagcgg aagcgagtgg gtgtgtggaa tgtaccatac 1380
atctcccagg cctatgtgat ccgggggtgat accctgcgga tggagctgcc ccagagggat 1440
gtgttctcgg gcagtgcac agacccggac atggccttct gtaagagctt tcgagacaag 1500
ggcatcttcc tccatctgag caatcagcat gaatttggcc ggctcctggc cacttccaga 1560
tacgacacgg agcacctgca ccccgacctc tggcagatct tcgacaaccc cgtcgactgg 1620
aaggagcagt acatccacga gaactacagc cggggccctg aaggggaagg aatcgtggag 1680
cagccatgcc cggacgtgta ctggttccca ctgctgtcag aacaaatgtg tgatgagctg 1740
gtggcagaga tggagcacta cggccagtgg tcaggcggcc ggcatgagga ttcaaggctg 1800
gctggaggct acgagaatgt gccaccgtg gacatccaca tgaagcaggt ggggtacgag 1860
gaccagtggc tgcagctgct gcggacgtat gtgggcccc aagaccgagag cctgtttccc 1920
ggttaccaca ccaaggcgcg ggcggtgatg aactttgtgg ttcgctaccg gccagacgag 1980
cagccgtctc tgcggccaca ccacgactca tccaccttca ccctcaacgt tgccctcaac 2040
cacaagggcc tggactatga gggagggtggc tgccgcttcc tgcgctacga ctgtgtgatc 2100
tcctccccga ggaagggtct ggcactcctg caccggcc gcctcaccca ctaccacgag 2160
gggctgcca cgcactgggg cacacgctac atcatggtgt ctttgtcga ccccggaagc 2220

ggagtgaaac	agacttttgaa	ttttgacctt	ctcaagttgg	cgggagacgt	ggagtccaac	2280
cctggacctta	cgctgaggct	tctggtggcc	gcgctctgcg	ccgggatcct	ggcagaggcg	2340
ccccgagtg	gagcccagca	cagggagaga	gtgacctgca	cgcgcttta	cgccgctgac	2400
attgtgttct	tactggatgg	ctcctcatcc	attggccgca	gcaatttccg	cgagggtccgc	2460
agcttttctcg	aagggctggg	gctgcctttc	tctggagcag	ccagtgcaca	gggtgtgcgc	2520
tttggcacag	tgcagtacag	cgatgaccca	cggacagagt	tcggcctgga	tgcacttggc	2580
tctgggggtg	atgtgatccg	cgccatccgt	gagcttagct	acaagggggg	caacactcgc	2640
acaggggctg	caattctcca	tgtggctgac	catgtcttcc	tgccccagct	ggccccgacct	2700
ggtgtcccca	aggtctgcat	cctgatcaca	gacgggaagt	cccaggacct	ggtggacaca	2760
gctgccc aaa	ggctgaaggg	gcaggggggtc	aagctatttg	ctgtgggggat	caagaatgct	2820
gaccctgagg	agctgaagcg	agttgcctca	cagcccacca	gtgacttctt	cttcttcgtc	2880
aatgacttca	gcatcttgag	gacactactg	cccctcgttt	cccggagagt	gtgcacgact	2940
gctggtggcg	tgctgtgac	ccgacctccg	gatgactcga	cctctgctcc	acgagacctg	3000
gtgctgtctg	agccaagcag	ccaatccttg	agagtacagt	ggacagcggc	cagtggccct	3060
gtgactggct	acaagggtcca	gtacactcct	ctgacggggc	tgggacagcc	actgccgagt	3120
gagcggcagg	aggtgaacgt	cccagctggg	gagaccagt	tgaggctgcg	gggtctccgg	3180
ccactgaccg	agtaccaagt	gactgtgatt	gccctctacg	ccaacagcat	cggggagggt	3240
gtgagcggga	cagctcggac	cactgcccta	gaaggggccg	aactgaccat	ccagaatacc	3300
acagcccaca	gcctcctggg	ggcctggcgg	agtgtgccag	gtgccactgg	ctaccgtgtg	3360
acatggcggg	tcctcagtgg	tgggcccaca	cagcagcagg	agctggggcc	tgggcagggt	3420
tcagtgttgc	tgctgactt	ggagcctggc	acggactatg	aggtgaccgt	gagcacccta	3480
tttggccgca	gtgtggggcc	cgccacttcc	ctgatggctc	gcaactgacg	ttctgttgag	3540
cagaccctgc	gcccggtcac	cctggggccc	acatccatcc	tcctttcctg	gaacttggtg	3600
cctgaggccc	gtggctaccg	gttggaatgg	cggcgtaga	ctggcttgga	gccaccgcag	3660
aagggtgtac	tgccctctga	tgtgacccgc	taccagttgg	atgggctgca	gccggggcact	3720
gagtaccgcc	tcacactcta	cactctgctg	gaggggccacg	aggtggccac	ccctgcaacc	3780
gtggttccca	ctggaccaga	gctgcctgtg	agccctgtaa	cagacctgca	agccaccgag	3840
ctgcccgggc	agcgggtg	agtgtcctgg	agccagctcc	ctggtgccac	ccagtaccgc	3900
atcattgtgc	gcagcaccga	gggggttgag	cggaccctgg	tgcttcctgg	gagtcagaca	3960
gcattcgact	tggatgacgt	tcaggctggg	cttagctaca	ctgtgcgggt	gtctgctcga	4020
gtgggtcccc	gtgagggcag	tgccagtgtc	ctcactgtcc	gccgggagcc	ggaaactcca	4080
cttgctgttc	cagggtg	ggttgtggtg	tcagatgcaa	cgcgagt	ggtggcctgg	4140
ggaccctg	ctggagccag	tggatttcgg	attagctgga	gcacaggcag	tgggtccggag	4200
tccagccaga	cactgcccc	agactctact	gccacagaca	tcacagggt	gcagcctgga	4260
accacctacc	aggtggctgt	gtcggctactg	cagggcagag	aggaggggcc	tgctgcagtc	4320
atcgtggctc	gaacggaccc	actgggccc	gtgaggacgg	tccatgtgac	tcaggccagc	4380
agctcatctg	tcaccattac	ctggaccagg	gttcctggcg	ccacaggata	cagggtttcc	4440
tggcactcag	cccacggccc	agagaaaatcc	cagttggttt	ctggggaggc	cacgggtggct	4500
gagctggatg	gactggagcc	agatactgag	tatacgggtg	atgtgagggt	ccatgtggct	4560
ggcgtggatg	ggccccctgc	ctctgtgggt	gtgaggactg	cccctgagcc	tgtgggtcgt	4620
gtgtcgaggc	tgcatatcct	caatgcttcc	agcgacgttc	tacggatcac	ctgggtaggg	4680
gtcactggag	ccacagctta	cagactggcc	tggggccgga	gtgaaggcgg	ccccatgagg	4740
caccagatac	tcccaggaaa	cacagactct	gcagagatcc	gggggtctga	aggtggagtc	4800
agctactcag	tgcgagt	tgacttgtc	ggggaccg	agggcacacc	tgtctccatt	4860
gttgtcacta	cgccgcctga	ggctccgcca	gccctgggga	cgcttcacgt	ggtgcagcgc	4920
ggggagcact	cgctgaggct	gcgctgggag	ccggtgcccc	gagcgagg	cttccttctg	4980
cactggcaac	ctgagggtgg	ccaggaaacag	tcccgggtcc	tggggcccga	gctcagcagc	5040
tatcacctgg	acgggctgga	gccagcgaca	cagtaccg	tgaggctgag	tgtcctaggg	5100
ccagctggag	aagggccctc	tgagagggtg	actgcgcgca	ctgagtcacc	tcgtgttcca	5160
agcattgaac	tacgtgtggt	ggacacctgc	atcgactcgg	tgactttggc	ctggactcca	5220

gtgtccaggg	catccagcta	catcctatcc	tggcggccac	tcagaggccc	tggccaggaa	5280
gtgcctgggt	ccccgcagac	acttccaggg	atctcaagct	cccagcgggt	gacagggcta	5340
gagcctggcg	tctcttacat	cttctccctg	acgcctgtcc	tggatgggtg	gcggggtcct	5400
gaggcatctg	tcacacagac	gccagtgtgc	ccccgtggcc	tggcggatgt	ggtgttccta	5460
ccacatgcca	ctcaagacaa	tgctcaccgt	gcggaggcta	cgaggagggt	cctggagcgt	5520
ctgggtgttg	cacttggggc	tcttggggcca	caggcagttc	aggttggcct	gctgtcttac	5580
agtcacggc	cctccccact	gttccccactg	aatggctccc	atgaccttgg	cattatcttg	5640
caaaggatcc	gtgacatgcc	ctacatggac	ccaagtggga	acaacctggg	cacagccgtg	5700
gtcacagctc	acagatacat	gttggcacca	gatgctcctg	ggcgccgcca	gcacgtacca	5760
ggggtgatgg	ttctgctagt	ggatgaaccc	ttgagagggtg	acatattcag	ccccatccgt	5820
gaggccccagg	cttctgggct	taatgtgggtg	atgttgggaa	tggctggagc	ggacccagag	5880
cagctgcgtc	gcttggcgcc	gggtatggac	tctgtccaga	ccttcttcgc	cgtggatgat	5940
ggggccaagcc	tggaccaggc	agtcagtggg	ctggccacag	ccctgtgtca	ggcatccttc	6000
actactcagc	cccggccaga	gccctgcccc	gtgtattgtc	caaagggcca	gaagggggaa	6060
cctggagaga	tgggcctgag	aggacaagtt	gggcctcctg	gcgaccttgg	cctcccgggc	6120
aggaccggtg	ctcccggccc	ccagggggccc	cctggaaagt	ccactgccaa	gggcgagagg	6180
ggcttccctg	gagcagatgg	gcgtccaggc	agccctggcc	gcgccgggaa	tcctgggacc	6240
cctggagccc	ctggcctaaa	gggctctcca	gggttgcttg	gccctcgtgg	ggacccggga	6300
gagcgaggac	ctcgaggccc	aaaggggggag	ccgggggctc	ccggacaagt	catcggagggt	6360
gaaggacctg	ggcttcctgg	gcggaaaggg	gaccctggac	catcggggccc	ccctggacct	6420
cgtggaccac	tgggggaccc	aggacccctg	ggccccccag	ggcttcctgg	aacagccatg	6480
aagggtgaca	aaggcgatcg	tggggagcgg	ggtccccctg	gaccagggtga	agggtggcatt	6540
gctcctgggg	agcctgggct	gccgggtctt	cccggaaagg	ctggacccca	aggccccgtt	6600
ggccccctg	gaaaagaaagg	agaaaaaggt	gactctgagg	atggagctcc	aggcctccca	6660
ggacaacctg	ggtctccggg	tgagcagggc	ccacggggac	ctcctggagc	tattggcccc	6720
aaagggtgacc	ggggctttcc	aggggcccctg	ggtgaggctg	gagagaagggt	cgaacgtgga	6780
cccccaggcc	cagcgggatc	ccgggggctg	ccaggggttg	ctggacgtcc	tggagccaag	6840
ggtcctgaag	ggccaccagg	accactggc	cgccaaggag	agaaggggga	gcctggtcgc	6900
cctggggacc	ctgcagtggg	gggacctgct	gttgctggac	ccaaaggaga	aaaggagat	6960
gtggggcccc	ctgggcccag	aggagctacc	ggagtccaag	gggaacgggg	cccacccggc	7020
ttggttcttc	ctggagaccc	tggccccaag	ggagaccctg	gagaccgggg	tcccattggc	7080
cttactggca	gagcaggacc	cccagggtgac	tcagggcctc	ctggagagaa	gggagaccct	7140
gggcggcctg	gccccccagg	acctgttggc	ccccgaggac	gagatggtga	agttggagag	7200
aaagggtgacg	agggtcctcc	gggtgacccg	ggtttgcctg	gaaaagcagg	cgagcgtggc	7260
cttcggggggg	cacctggagt	tcgggggctt	gtgggtgaaa	agggagacca	gggagatcct	7320
ggagaggatg	gacgaaatgg	cagccctgga	tcactctggac	ccaagggtga	ccgtggggag	7380
ccgggtcccc	caggaccccc	gggacggctg	gtagacacag	gacctggagc	cagagagaag	7440
ggagagcctg	gggaccgcgg	acaagagggt	cctcgagggc	ccaagggtga	tcctggcctc	7500
cctggagccc	ctggggaaaag	gggcattgaa	gggtttcggg	gacccccagg	cccacagggg	7560
gacccagggtg	tccgaggccc	agcaggagaa	aagggtgacc	gggggtcccc	tgggctggat	7620
ggccggagcg	gactggatgg	gaaaccagga	gccgctgggc	cctctggggc	gaatggtgct	7680
gcaggcaaaag	ctggggaccc	agggagagac	gggcttccag	gcctccgtgg	agaacagggc	7740
ctccctggcc	cctctgggtc	ccctggatta	ccgggaaaag	caggcgagga	tggcaaacct	7800
ggcctgaatg	gaaaaaacgg	agaacctggg	gacctggag	aagacgggag	gaagggagag	7860
aaaggagatt	caggcgctc	tgggagagaa	ggtcgtgatg	gccccaaagg	tgagcgtgga	7920
gctcctggta	tccttggacc	ccaggggcct	ccaggcctcc	cagggccagt	gggcccctcct	7980
ggccagggtt	ttcctgggtg	cccaggaggc	acggggccca	agggtgaccg	tggggagact	8040
ggatccaaaag	gggagcaggg	cctccctgga	gagcgtggcc	tgcgaggaga	gcctggaagt	8100
gtgccgaatg	tggatcggtt	gctggaaact	gctggcatca	aggcatctgc	cctgcgggag	8160
atcgtggaga	cctgggatga	gagctctggt	agcttcctgc	ctgtgcccga	acggcgtcga	8220

ggccccaagg	gggactcagg	cgaacagggc	cccccaggca	aggagggccc	catcggcttt	8280
cctggagaac	gcgggctgaa	gggcgaccgt	ggagaccctg	gccctcaggg	gccacctggt	8340
ctggcccttg	gggagagggg	cccccccg	ccttccggcc	ttgccgggga	gcctggaaa	8400
cctggtattc	ccgggctccc	aggcagggct	gggggtgtgg	gagaggcagg	aaggccagga	8460
gagagggggag	aacgggggaga	gaaaggagaa	cgtggagaa	agggcagaga	tggccctcct	8520
ggactccctg	gaacccctgg	gccccccgga	ccccctggcc	ccaagggtgc	tgtggatgag	8580
ccaggtcctg	gactctctgg	agaacaggga	ccccctggac	tcaagggtgc	taagggggag	8640
ccgggcagca	atggtgacca	aggtcccaaa	ggagacaggg	gtgtgccagg	catcaaagga	8700
gaccggggag	agcctggacc	gaggggtcag	gacggcaacc	cgggtctacc	aggagagcgt	8760
ggtatggctg	ggcctgaagg	gaagccgggt	ctgcagggtc	caagaggccc	ccctggccca	8820
gtgggtggtc	atggagaccc	tggaccacct	ggtgcccccg	gtcttgctgg	ccctgcagga	8880
ccccaaaggac	cttctggcct	gaagggggag	cctggagaga	caggacctcc	aggacggggc	8940
ctgactggac	ctactggagc	tgtgggactt	cctggacccc	ccggcccttc	aggccttggt	9000
ggtccacagg	ggtctccagg	tttgcctgga	caagtggggg	agacagggaa	gccgggagcc	9060
ccaggtcgag	atggtgccag	tggaaaagat	ggagacagag	ggagccctgg	tgtgccaggg	9120
tcaccaggtc	tgcttgcccc	tgtcggacct	aaaggagaac	ctggccccac	gggggccccct	9180
ggacaggctg	tggtcgggct	ccctggagca	aagggagaga	agggagcccc	tggaggcctt	9240
gctggagacc	tgggtgggtga	gccgggagcc	aaagggtgacc	gaggactgcc	agggccgcga	9300
ggcgagaagg	gtgaagctgg	ccgtgcaggg	gagcccggag	accctgggga	agatggtcag	9360
aaagggggctc	caggacccaa	aggtttcaag	ggtgaccag	gagtcgggggt	cccgggctcc	9420
cctgggcctc	ctggccctcc	aggtgtgaag	ggagatctgg	gcctccctgg	cctgcccgggt	9480
gctcctgggtg	ttgttgggtt	cccgggtcag	acaggccctc	gaggagagat	gggtcagcca	9540
ggccctagt	gagagcgggg	tctggcaggc	cccccaggga	gagaaggaat	cccaggaccc	9600
ctggggccac	ctggaccacc	ggggtcagtg	ggaccacctg	gggcctctgg	actcaaagga	9660
gacaaggggag	accctggagt	agggtgcct	gggccccgag	gcgagcgtgg	ggagccaggc	9720
atccgggggtg	aagatggccg	ccccggccag	gagggacccc	gaggactcac	ggggccccct	9780
ggcagcagggg	gagagcgtgg	ggagaaggggt	gatgttgagg	gtgcaggact	aaagggtgac	9840
aaggggagact	cagctgtgat	cctggggcct	ccaggcccac	gggggtgcaa	gggggacatg	9900
ggtgaacgag	ggcctcgggg	cttggatggt	gacaaaaggac	ctcggggaga	caatggggac	9960
cctggtgaca	agggcagcaa	gggagagcct	ggtgacaagg	gctcagccgg	gttgccagga	10020
ctgcgtggac	tcctgggacc	ccagggtcaa	cctggtgcag	cagggatccc	tggtgacccg	10080
ggatccccag	gaaaaggatg	agtgcctggt	atccgaggag	aaaaaggaga	tgttggtctc	10140
atgggtcccc	ggggcctcaa	gggtgaacgg	ggagtgaagg	gagcctgtgg	ccttgatgga	10200
gagaaggggag	acaaggggaga	agctgggtccc	ccaggccgcc	ccgggctggc	aggacacaaa	10260
ggagagatgg	gggagcctgg	tgtgccgggc	cagtcggggg	cccctggcaa	ggagggcctg	10320
atcgggtcca	agggtgaccg	aggctttgac	gggcagccag	gccccaaagg	tgaccagggc	10380
gagaaagggg	agcgggggaa	cccagggaatt	gggggcttcc	caggccccag	tggaaatgat	10440
ggctctgctg	gtcccccagg	gccacctggc	agtgttggtc	ccagaggccc	cgaaggactt	10500
caggggccaga	agggtgagcg	aggtcccccc	ggagagagag	tgggtggggg	tcctgggggtc	10560
cctggagctc	ctggcgagag	aggggagcag	gggcggccag	ggcctgcccgg	tcctcgaggc	10620
gagaaggggag	aagctgcact	gacggaggat	gacatccggg	gctttgtgcg	ccaagagatg	10680
agtcagcact	gtgcctgcca	gggccagttc	atcgcatctg	gatcacgacc	cctccctagt	10740
tatgctgcag	acactgccgg	ctcccagctc	catgctgtgc	ctgtgctccg	cgtctctcat	10800
gcagaggagg	aagagcgggt	accccctgag	gatgatgagt	actctgaata	ctccgagtat	10860
tctgtggagg	agtaccagga	ccctgaagct	ccttgggata	gtgatgaccc	ctgttccctg	10920
ccactggatg	agggctcctg	cactgcctac	accctgcgct	ggtaccatcg	ggctgtgaca	10980
ggcagcacag	aggcctgtca	cccttttgtc	tatggtggct	gtggagggaa	tgccaaccgt	11040
tttgggaccc	gtgaggcctg	cgagcgccgc	tgccccaccc	gggtgggtcca	gagccagggg	11100
acagggtactg	cccaggactg	a				11121

<210> 28
<211> 3706
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 28

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

				325				330				335			
Val	Phe	His	Glu	Pro	His	Ile	Ala	Asp	Ser	Trp	Pro	Gln	Leu	Gln	Asp
			340					345				350			
His	Phe	Ser	Ala	Val	Lys	Leu	Val	Gly	Pro	Glu	Glu	Ala	Leu	Ser	Pro
		355					360					365			
Gly	Glu	Ala	Arg	Asp	Met	Ala	Met	Asp	Leu	Cys	Arg	Gln	Asp	Pro	Glu
	370					375					380				
Cys	Glu	Phe	Tyr	Phe	Ser	Leu	Asp	Ala	Asp	Ala	Val	Leu	Thr	Asn	Leu
385					390					395					400
Gln	Thr	Leu	Arg	Ile	Leu	Ile	Glu	Glu	Asn	Arg	Lys	Val	Ile	Ala	Pro
			405						410					415	
Met	Leu	Ser	Arg	His	Gly	Lys	Leu	Trp	Ser	Asn	Phe	Trp	Gly	Ala	Leu
			420					425					430		
Ser	Pro	Asp	Glu	Tyr	Tyr	Ala	Arg	Ser	Glu	Asp	Tyr	Val	Glu	Leu	Val
		435					440					445			
Gln	Arg	Lys	Arg	Val	Gly	Val	Trp	Asn	Val	Pro	Tyr	Ile	Ser	Gln	Ala
	450					455					460				
Tyr	Val	Ile	Arg	Gly	Asp	Thr	Leu	Arg	Met	Glu	Leu	Pro	Gln	Arg	Asp
465					470					475					480
Val	Phe	Ser	Gly	Ser	Asp	Thr	Asp	Pro	Asp	Met	Ala	Phe	Cys	Lys	Ser
			485						490					495	
Phe	Arg	Asp	Lys	Gly	Ile	Phe	Leu	His	Leu	Ser	Asn	Gln	His	Glu	Phe
		500					505					510			
Gly	Arg	Leu	Leu	Ala	Thr	Ser	Arg	Tyr	Asp	Thr	Glu	His	Leu	His	Pro
		515					520				525				
Asp	Leu	Trp	Gln	Ile	Phe	Asp	Asn	Pro	Val	Asp	Trp	Lys	Glu	Gln	Tyr
	530					535					540				
Ile	His	Glu	Asn	Tyr	Ser	Arg	Ala	Leu	Glu	Gly	Glu	Gly	Ile	Val	Glu
545					550					555					560
Gln	Pro	Cys	Pro	Asp	Val	Tyr	Trp	Phe	Pro	Leu	Leu	Ser	Glu	Gln	Met
			565						570					575	
Cys	Asp	Glu	Leu	Val	Ala	Glu	Met	Glu	His	Tyr	Gly	Gln	Trp	Ser	Gly
		580						585				590			
Gly	Arg	His	Glu	Asp	Ser	Arg	Leu	Ala	Gly	Gly	Tyr	Glu	Asn	Val	Pro
		595					600					605			
Thr	Val	Asp	Ile	His	Met	Lys	Gln	Val	Gly	Tyr	Glu	Asp	Gln	Trp	Leu
	610					615					620				
Gln	Leu	Leu	Arg	Thr	Tyr	Val	Gly	Pro	Met	Thr	Glu	Ser	Leu	Phe	Pro
625					630					635					640
Gly	Tyr	His	Thr	Lys	Ala	Arg	Ala	Val	Met	Asn	Phe	Val	Val	Arg	Tyr
			645						650					655	
Arg	Pro	Asp	Glu	Gln	Pro	Ser	Leu	Arg	Pro	His	His	Asp	Ser	Ser	Thr
		660						665					670		
Phe	Thr	Leu	Asn	Val	Ala	Leu	Asn	His	Lys	Gly	Leu	Asp	Tyr	Glu	Gly
		675					680					685			
Gly	Gly	Cys	Arg	Phe	Leu	Arg	Tyr	Asp	Cys	Val	Ile	Ser	Ser	Pro	Arg
	690					695					700				
Lys	Gly	Trp	Ala	Leu	Leu	His	Pro	Gly	Arg	Leu	Thr	His	Tyr	His	Glu
705					710					715					720
Gly	Leu	Pro	Thr	Thr	Trp	Gly	Thr	Arg	Tyr	Ile	Met	Val	Ser	Phe	Val

														725															730															735
Asp	Pro	Gly	Ser		Gly	Val	Lys	Gln	Thr	Leu		Asn	Phe	Asp	Leu	Leu		Lys																										
														740															745															750
Leu	Ala	Gly	Asp	Val	Glu	Ser	Asn		Pro	Gly	Pro	Thr	Leu	Arg	Leu	Leu																												
														755															760															765
Val	Ala	Ala	Leu	Cys	Ala	Gly	Ile	Leu	Ala	Glu	Ala	Pro	Arg	Val	Arg	Val	Arg																											
														770															775															780
Ala	Gln	His	Arg	Glu	Arg	Val	Thr	Cys	Thr	Arg	Leu	Tyr	Ala	Ala	Asp																													
														785															790															795
Ile	Val	Phe	Leu	Leu	Asp	Gly	Ser	Ser	Ser	Ile	Gly	Arg	Ser	Asn	Phe																													
														805															810															815
Arg	Glu	Val	Arg	Ser	Phe	Leu	Glu	Gly	Leu	Val	Leu	Pro	Phe	Ser	Gly																													
														820															825															830
Ala	Ala	Ser	Ala	Gln	Gly	Val	Arg	Phe	Ala	Thr	Val	Gln	Tyr	Ser	Asp																													
														835															840															845
Asp	Pro	Arg	Thr	Glu	Phe	Gly	Leu	Asp	Ala	Leu	Gly	Ser	Gly	Gly	Asp																													
														850															855															860
Val	Ile	Arg	Ala	Ile	Arg	Glu	Leu	Ser	Tyr	Lys	Gly	Gly	Asn	Thr	Arg																													
														865															870															880
Thr	Gly	Ala	Ala	Ile	Leu	His	Val	Ala	Asp	His	Val	Phe	Leu	Pro	Gln																													
														885															890															895
Leu	Ala	Arg	Pro	Gly	Val	Pro	Lys	Val	Cys	Ile	Leu	Ile	Thr	Asp	Gly																													
														900															905															910
Lys	Ser	Gln	Asp	Leu	Val	Asp	Thr	Ala	Ala	Gln	Arg	Leu	Lys	Gly	Gln																													
														915															920															925
Gly	Val	Lys	Leu	Phe	Ala	Val	Gly	Ile	Lys	Asn	Ala	Asp	Pro	Glu	Glu																													
														930															935															940
Leu	Lys	Arg	Val	Ala	Ser	Gln	Pro	Thr	Ser	Asp	Phe	Phe	Phe	Phe	Val																													
														945															950															955
Asn	Asp	Phe	Ser	Ile	Leu	Arg	Thr	Leu	Leu	Pro	Leu	Val	Ser	Arg	Arg																													
														965															970															975
Val	Cys	Thr	Thr	Ala	Gly	Gly	Val	Pro	Val	Thr	Arg	Pro	Pro	Asp	Asp																													
														980															985															990
Ser	Thr	Ser	Ala	Pro	Arg	Asp	Leu	Val	Leu	Ser	Glu	Pro	Ser	Ser	Gln																													
														995															1000															1005
Ser	Leu	Arg	Val	Gln	Trp	Thr	Ala	Ala	Ser	Gly	Pro	Val	Thr	Gly	Tyr																													
														1010															1015															1020
Lys	Val	Gln	Tyr	Thr	Pro	Leu	Thr	Gly	Leu	Gly	Gln	Pro	Leu	Pro	Ser																													
														1025															1030															1035
Glu	Arg	Gln	Glu	Val	Asn	Val	Pro	Ala	Gly	Glu	Thr	Ser	Val	Arg	Leu																													
														1045															1050															1055
Arg	Gly	Leu	Arg	Pro	Leu	Thr	Glu	Tyr	Gln	Val	Thr	Val	Ile	Ala	Leu																													
														1060															1065															1070
Tyr	Ala	Asn	Ser	Ile	Gly	Glu	Ala	Val	Ser	Gly	Thr	Ala	Arg	Thr	Thr																													
														1075															1080															1085
Ala	Leu	Glu	Gly	Pro	Glu	Leu	Thr	Ile	Gln	Asn	Thr	Thr	Ala	His	Ser																													
														1090															1095															1100
Leu	Leu	Val	Ala	Trp	Arg	Ser	Val	Pro	Gly	Ala	Thr	Gly	Tyr	Arg	Val																													
														1105															1110															1115
Thr	Trp	Arg	Val	Leu	Ser	Gly</																																						

				1125					1130					1135	
Pro	Gly	Gln	Gly	Ser	Val	Leu	Leu	Arg	Asp	Leu	Glu	Pro	Gly	Thr	Asp
			1140					1145					1150		
Tyr	Glu	Val	Thr	Val	Ser	Thr	Leu	Phe	Gly	Arg	Ser	Val	Gly	Pro	Ala
		1155					1160					1165			
Thr	Ser	Leu	Met	Ala	Arg	Thr	Asp	Ala	Ser	Val	Glu	Gln	Thr	Leu	Arg
	1170					1175					1180				
Pro	Val	Ile	Leu	Gly	Pro	Thr	Ser	Ile	Leu	Leu	Ser	Trp	Asn	Leu	Val
1185				1190					1195				1200		
Pro	Glu	Ala	Arg	Gly	Tyr	Arg	Leu	Glu	Trp	Arg	Arg	Glu	Thr	Gly	Leu
			1205					1210					1215		
Glu	Pro	Pro	Gln	Lys	Val	Val	Leu	Pro	Ser	Asp	Val	Thr	Arg	Tyr	Gln
			1220					1225					1230		
Leu	Asp	Gly	Leu	Gln	Pro	Gly	Thr	Glu	Tyr	Arg	Leu	Thr	Leu	Tyr	Thr
	1235					1240					1245				
Leu	Leu	Glu	Gly	His	Glu	Val	Ala	Thr	Pro	Ala	Thr	Val	Val	Pro	Thr
	1250				1255						1260				
Gly	Pro	Glu	Leu	Pro	Val	Ser	Pro	Val	Thr	Asp	Leu	Gln	Ala	Thr	Glu
1265				1270					1275					1280	
Leu	Pro	Gly	Gln	Arg	Val	Arg	Val	Ser	Trp	Ser	Pro	Val	Pro	Gly	Ala
			1285					1290						1295	
Thr	Gln	Tyr	Arg	Ile	Ile	Val	Arg	Ser	Thr	Gln	Gly	Val	Glu	Arg	Thr
	1300							1305					1310		
Leu	Val	Leu	Pro	Gly	Ser	Gln	Thr	Ala	Phe	Asp	Leu	Asp	Asp	Val	Gln
	1315					1320					1325				
Ala	Gly	Leu	Ser	Tyr	Thr	Val	Arg	Val	Ser	Ala	Arg	Val	Gly	Pro	Arg
	1330					1335					1340				
Glu	Gly	Ser	Ala	Ser	Val	Leu	Thr	Val	Arg	Arg	Glu	Pro	Glu	Thr	Pro
1345				1350					1355					1360	
Leu	Ala	Val	Pro	Gly	Leu	Arg	Val	Val	Val	Ser	Asp	Ala	Thr	Arg	Val
			1365					1370						1375	
Arg	Val	Ala	Trp	Gly	Pro	Val	Pro	Gly	Ala	Ser	Gly	Phe	Arg	Ile	Ser
	1380							1385					1390		
Trp	Ser	Thr	Gly	Ser	Gly	Pro	Glu	Ser	Ser	Gln	Thr	Leu	Pro	Pro	Asp
	1395					1400						1405			
Ser	Thr	Ala	Thr	Asp	Ile	Thr	Gly	Leu	Gln	Pro	Gly	Thr	Thr	Tyr	Gln
	1410				1415						1420				
Val	Ala	Val	Ser	Val	Leu	Arg	Gly	Arg	Glu	Glu	Gly	Pro	Ala	Ala	Val
1425				1430					1435					1440	
Ile	Val	Ala	Arg	Thr	Asp	Pro	Leu	Gly	Pro	Val	Arg	Thr	Val	His	Val
			1445					1450					1455		
Thr	Gln	Ala	Ser	Ser	Ser	Ser	Val	Thr	Ile	Thr	Trp	Thr	Arg	Val	Pro
	1460							1465					1470		
Gly	Ala	Thr	Gly	Tyr	Arg	Val	Ser	Trp	His	Ser	Ala	His	Gly	Pro	Glu
	1475					1480					1485				
Lys	Ser	Gln	Leu	Val	Ser	Gly	Glu	Ala	Thr	Val	Ala	Glu	Leu	Asp	Gly
	1490					1495					1500				
Leu	Glu	Pro	Asp	Thr	Glu	Tyr	Thr	Val	His	Val	Arg	Ala	His	Val	Ala
1505				1510					1515					1520	
Gly	Val	Asp	Gly	Pro	Pro	Ala	Ser	Val	Val	Val	Arg	Thr	Ala	Pro	Glu

														1525				1530				1535			
Pro	Val	Gly	1540			Arg	Val	Ser	Arg	Leu	Gln	Ile	Leu	Asn	Ala	Ser	Ser	Asp							
Val	Leu	Arg	Ile	Thr	Trp	Val	Gly	Val	Thr	Gly	Ala	Thr	Ala	Tyr	Arg										
Leu	Ala	Trp	Gly	Arg	Ser	Glu	Gly	Gly	Pro	Met	Arg	His	Gln	Ile	Leu										
1570														1575				1580							
Pro	Gly	Asn	Thr	Asp	Ser	Ala	Glu	Ile	Arg	Gly	Leu	Glu	Gly	Gly	Val										
1585														1590				1595				1600			
Ser	Tyr	Ser	Val	Arg	Val	Thr	Ala	Leu	Val	Gly	Asp	Arg	Glu	Gly	Thr										
1605														1610				1615							
Pro	Val	Ser	Ile	Val	Val	Thr	Thr	Pro	Pro	Glu	Ala	Pro	Pro	Ala	Leu										
1620														1625				1630							
Gly	Thr	Leu	His	Val	Val	Gln	Arg	Gly	Glu	His	Ser	Leu	Arg	Leu	Arg										
1635														1640				1645							
Trp	Glu	Pro	Val	Pro	Arg	Ala	Gln	Gly	Phe	Leu	Leu	His	Trp	Gln	Pro										
1650														1655				1660							
Glu	Gly	Gly	Gln	Glu	Gln	Ser	Arg	Val	Leu	Gly	Pro	Glu	Leu	Ser	Ser										
1665														1670				1675				1680			
Tyr	His	Leu	Asp	Gly	Leu	Glu	Pro	Ala	Thr	Gln	Tyr	Arg	Val	Arg	Leu										
1685														1690				1695							
Ser	Val	Leu	Gly	Pro	Ala	Gly	Glu	Gly	Pro	Ser	Ala	Glu	Val	Thr	Ala										
1700														1705				1710							
Arg	Thr	Glu	Ser	Pro	Arg	Val	Pro	Ser	Ile	Glu	Leu	Arg	Val	Val	Asp										
1715														1720				1725							
Thr	Ser	Ile	Asp	Ser	Val	Thr	Leu	Ala	Trp	Thr	Pro	Val	Ser	Arg	Ala										
1730														1735				1740							
Ser	Ser	Tyr	Ile	Leu	Ser	Trp	Arg	Pro	Leu	Arg	Gly	Pro	Gly	Gln	Glu										
1745														1750				1755				1760			
Val	Pro	Gly	Ser	Pro	Gln	Thr	Leu	Pro	Gly	Ile	Ser	Ser	Ser	Gln	Arg										
1765														1770				1775							
Val	Thr	Gly	Leu	Glu	Pro	Gly	Val	Ser	Tyr	Ile	Phe	Ser	Leu	Thr	Pro										
1780														1785				1790							
Val	Leu	Asp	Gly	Val	Arg	Gly	Pro	Glu	Ala	Ser	Val	Thr	Gln	Thr	Pro										
1795														1800				1805							
Val	Cys	Pro	Arg	Gly	Leu	Ala	Asp	Val	Val	Phe	Leu	Pro	His	Ala	Thr										
1810														1815				1820							
Gln	Asp	Asn	Ala	His	Arg	Ala	Glu	Ala	Thr	Arg	Arg	Val	Leu	Glu	Arg										
1825														1830				1835				1840			
Leu	Val	Leu	Ala	Leu	Gly	Pro	Leu	Gly	Pro	Gln	Ala	Val	Gln	Val	Gly										
1845														1850				1855							
Leu	Leu	Ser	Tyr	Ser	His	Arg	Pro	Ser	Pro	Leu	Phe	Pro	Leu	Asn	Gly										
1860														1865				1870							
Ser	His	Asp	Leu	Gly	Ile	Ile	Leu	Gln	Arg	Ile	Arg	Asp	Met	Pro	Tyr										
1875														1880				1885							
Met	Asp	Pro	Ser	Gly	Asn	Asn	Leu	Gly	Thr	Ala	Val	Val	Thr	Ala	His										
1890														1895				1900							
Arg	Tyr	Met	Leu	Ala	Pro	Asp	Ala	Pro	Gly	Arg	Arg	Gln	His	Val	Pro										
1905														1910				1915				1920			
Gly	Val	Met	Val	Leu	Leu	Val	Asp	Glu	Pro	Leu	Arg	Gly	Asp	Ile	Phe										

				1925					1930					1935	
Ser	Pro	Ile	Arg	Glu	Ala	Gln	Ala	Ser	Gly	Leu	Asn	Val	Val	Met	Leu
			1940						1945					1950	
Gly	Met	Ala	Gly	Ala	Asp	Pro	Glu	Gln	Leu	Arg	Arg	Leu	Ala	Pro	Gly
		1955					1960					1965			
Met	Asp	Ser	Val	Gln	Thr	Phe	Phe	Ala	Val	Asp	Asp	Gly	Pro	Ser	Leu
	1970					1975					1980				
Asp	Gln	Ala	Val	Ser	Gly	Leu	Ala	Thr	Ala	Leu	Cys	Gln	Ala	Ser	Phe
1985				1990						1995				2000	
Thr	Thr	Gln	Pro	Arg	Pro	Glu	Pro	Cys	Pro	Val	Tyr	Cys	Pro	Lys	Gly
		2005						2010						2015	
Gln	Lys	Gly	Glu	Pro	Gly	Glu	Met	Gly	Leu	Arg	Gly	Gln	Val	Gly	Pro
		2020						2025					2030		
Pro	Gly	Asp	Pro	Gly	Leu	Pro	Gly	Arg	Thr	Gly	Ala	Pro	Gly	Pro	Gln
	2035						2040					2045			
Gly	Pro	Pro	Gly	Ser	Ala	Thr	Ala	Lys	Gly	Glu	Arg	Gly	Phe	Pro	Gly
	2050					2055					2060				
Ala	Asp	Gly	Arg	Pro	Gly	Ser	Pro	Gly	Arg	Ala	Gly	Asn	Pro	Gly	Thr
2065				2070						2075				2080	
Pro	Gly	Ala	Pro	Gly	Leu	Lys	Gly	Ser	Pro	Gly	Leu	Pro	Gly	Pro	Arg
		2085						2090						2095	
Gly	Asp	Pro	Gly	Glu	Arg	Gly	Pro	Arg	Gly	Pro	Lys	Gly	Glu	Pro	Gly
	2100						2105						2110		
Ala	Pro	Gly	Gln	Val	Ile	Gly	Gly	Glu	Gly	Pro	Gly	Leu	Pro	Gly	Arg
	2115					2120						2125			
Lys	Gly	Asp	Pro	Gly	Pro	Ser	Gly	Pro	Pro	Gly	Pro	Arg	Gly	Pro	Leu
	2130					2135						2140			
Gly	Asp	Pro	Gly	Pro	Arg	Gly	Pro	Pro	Gly	Leu	Pro	Gly	Thr	Ala	Met
2145				2150						2155				2160	
Lys	Gly	Asp	Lys	Gly	Asp	Arg	Gly	Glu	Arg	Gly	Pro	Pro	Gly	Pro	Gly
		2165						2170						2175	
Glu	Gly	Gly	Ile	Ala	Pro	Gly	Glu	Pro	Gly	Leu	Pro	Gly	Leu	Pro	Gly
		2180						2185					2190		
Ser	Pro	Gly	Pro	Gln	Gly	Pro	Val	Gly	Pro	Pro	Gly	Lys	Lys	Gly	Glu
	2195					2200						2205			
Lys	Gly	Asp	Ser	Glu	Asp	Gly	Ala	Pro	Gly	Leu	Pro	Gly	Gln	Pro	Gly
	2210					2215						2220			
Ser	Pro	Gly	Glu	Gln	Gly	Pro	Arg	Gly	Pro	Pro	Gly	Ala	Ile	Gly	Pro
2225				2230						2235				2240	
Lys	Gly	Asp	Arg	Gly	Phe	Pro	Gly	Pro	Leu	Gly	Glu	Ala	Gly	Glu	Lys
		2245						2250						2255	
Gly	Glu	Arg	Gly	Pro	Pro	Gly	Pro	Ala	Gly	Ser	Arg	Gly	Leu	Pro	Gly
	2260							2265					2270		
Val	Ala	Gly	Arg	Pro	Gly	Ala	Lys	Gly	Pro	Glu	Gly	Pro	Pro	Gly	Pro
	2275						2280						2285		
Thr	Gly	Arg	Gln	Gly	Glu	Lys	Gly	Glu	Pro	Gly	Arg	Pro	Gly	Asp	Pro
	2290					2295					2300				
Ala	Val	Val	Gly	Pro	Ala	Val	Ala	Gly	Pro	Lys	Gly	Glu	Lys	Gly	Asp
2305				2310						2315				2320	
Val	Gly	Pro	Ala	Gly	Pro	Arg	Gly	Ala	Thr	Gly	Val	Gln	Gly	Glu	Arg

				2325					2330					2335	
Gly	Pro	Pro	Gly	Leu	Val	Leu	Pro	Gly	Asp	Pro	Gly	Pro	Lys	Gly	Asp
			2340					2345					2350		
Pro	Gly	Asp	Arg	Gly	Pro	Ile	Gly	Leu	Thr	Gly	Arg	Ala	Gly	Pro	Pro
		2355					2360					2365			
Gly	Asp	Ser	Gly	Pro	Pro	Gly	Glu	Lys	Gly	Asp	Pro	Gly	Arg	Pro	Gly
	2370					2375					2380				
Pro	Pro	Gly	Pro	Val	Gly	Pro	Arg	Gly	Arg	Asp	Gly	Glu	Val	Gly	Glu
2385					2390					2395				2400	
Lys	Gly	Asp	Glu	Gly	Pro	Pro	Gly	Asp	Pro	Gly	Leu	Pro	Gly	Lys	Ala
			2405						2410				2415		
Gly	Glu	Arg	Gly	Leu	Arg	Gly	Ala	Pro	Gly	Val	Arg	Gly	Pro	Val	Gly
		2420						2425				2430			
Glu	Lys	Gly	Asp	Gln	Gly	Asp	Pro	Gly	Glu	Asp	Gly	Arg	Asn	Gly	Ser
	2435						2440				2445				
Pro	Gly	Ser	Ser	Gly	Pro	Lys	Gly	Asp	Arg	Gly	Glu	Pro	Gly	Pro	Pro
	2450					2455					2460				
Gly	Pro	Pro	Gly	Arg	Leu	Val	Asp	Thr	Gly	Pro	Gly	Ala	Arg	Glu	Lys
2465					2470					2475				2480	
Gly	Glu	Pro	Gly	Asp	Arg	Gly	Gln	Glu	Gly	Pro	Arg	Gly	Pro	Lys	Gly
			2485						2490					2495	
Asp	Pro	Gly	Leu	Pro	Gly	Ala	Pro	Gly	Glu	Arg	Gly	Ile	Glu	Gly	Phe
		2500						2505					2510		
Arg	Gly	Pro	Pro	Gly	Pro	Gln	Gly	Asp	Pro	Gly	Val	Arg	Gly	Pro	Ala
	2515						2520					2525			
Gly	Glu	Lys	Gly	Asp	Arg	Gly	Pro	Pro	Gly	Leu	Asp	Gly	Arg	Ser	Gly
	2530					2535					2540				
Leu	Asp	Gly	Lys	Pro	Gly	Ala	Ala	Gly	Pro	Ser	Gly	Pro	Asn	Gly	Ala
2545					2550					2555				2560	
Ala	Gly	Lys	Ala	Gly	Asp	Pro	Gly	Arg	Asp	Gly	Leu	Pro	Gly	Leu	Arg
			2565						2570					2575	
Gly	Glu	Gln	Gly	Leu	Pro	Gly	Pro	Ser	Gly	Pro	Pro	Gly	Leu	Pro	Gly
		2580						2585					2590		
Lys	Pro	Gly	Glu	Asp	Gly	Lys	Pro	Gly	Leu	Asn	Gly	Lys	Asn	Gly	Glu
	2595						2600					2605			
Pro	Gly	Asp	Pro	Gly	Glu	Asp	Gly	Arg	Lys	Gly	Glu	Lys	Gly	Asp	Ser
	2610					2615					2620				
Gly	Ala	Ser	Gly	Arg	Glu	Gly	Arg	Asp	Gly	Pro	Lys	Gly	Glu	Arg	Gly
2625					2630					2635				2640	
Ala	Pro	Gly	Ile	Leu	Gly	Pro	Gln	Gly	Pro	Pro	Gly	Leu	Pro	Gly	Pro
			2645						2650					2655	
Val	Gly	Pro	Pro	Gly	Gln	Gly	Phe	Pro	Gly	Val	Pro	Gly	Gly	Thr	Gly
		2660						2665					2670		
Pro	Lys	Gly	Asp	Arg	Gly	Glu	Thr	Gly	Ser	Lys	Gly	Glu	Gln	Gly	Leu
	2675						2680					2685			
Pro	Gly	Glu	Arg	Gly	Leu	Arg	Gly	Glu	Pro	Gly	Ser	Val	Pro	Asn	Val
	2690					2695					2700				
Asp	Arg	Leu	Leu	Glu	Thr	Ala	Gly	Ile	Lys	Ala	Ser	Ala	Leu	Arg	Glu
2705					2710					2715				2720	
Ile	Val	Glu	Thr	Trp	Asp	Glu	Ser	Ser	Gly	Ser	Phe	Leu	Pro	Val	Pro

										2725				2730				2735			
Glu	Arg	Arg	Arg	Gly	Pro	Lys	Gly	Asp	Ser	Gly	Glu	Gln	Gly	Pro	Pro						
										2740				2745				2750			
Gly	Lys	Glu	Gly	Pro	Ile	Gly	Phe	Pro	Gly	Glu	Arg	Gly	Leu	Lys	Gly						
										2755				2760				2765			
Asp	Arg	Gly	Asp	Pro	Gly	Pro	Gln	Gly	Pro	Pro	Gly	Leu	Ala	Leu	Gly						
										2770				2775				2780			
Glu	Arg	Gly	Pro	Pro	Gly	Pro	Ser	Gly	Leu	Ala	Gly	Glu	Pro	Gly	Lys						
										2785				2790				2795			
Pro	Gly	Ile	Pro	Gly	Leu	Pro	Gly	Arg	Ala	Gly	Gly	Val	Gly	Glu	Ala						
										2805				2810				2815			
Gly	Arg	Pro	Gly	Glu	Arg	Gly	Glu	Arg	Gly	Glu	Lys	Gly	Glu	Arg	Gly						
										2820				2825				2830			
Glu	Gln	Gly	Arg	Asp	Gly	Pro	Pro	Gly	Leu	Pro	Gly	Thr	Pro	Gly	Pro						
										2835				2840				2845			
Pro	Gly	Pro	Pro	Gly	Pro	Lys	Val	Ser	Val	Asp	Glu	Pro	Gly	Pro	Gly						
										2850				2855				2860			
Leu	Ser	Gly	Glu	Gln	Gly	Pro	Pro	Gly	Leu	Lys	Gly	Ala	Lys	Gly	Glu						
										2865				2870				2875			
Pro	Gly	Ser	Asn	Gly	Asp	Gln	Gly	Pro	Lys	Gly	Asp	Arg	Gly	Val	Pro						
										2885				2890				2895			
Gly	Ile	Lys	Gly	Asp	Arg	Gly	Glu	Pro	Gly	Pro	Arg	Gly	Gln	Asp	Gly						
										2900				2905				2910			
Asn	Pro	Gly	Leu	Pro	Gly	Glu	Arg	Gly	Met	Ala	Gly	Pro	Glu	Gly	Lys						
										2915				2920				2925			
Pro	Gly	Leu	Gln	Gly	Pro	Arg	Gly	Pro	Pro	Gly	Pro	Val	Gly	Gly	His						
										2930				2935				2940			
Gly	Asp	Pro	Gly	Pro	Pro	Gly	Ala	Pro	Gly	Leu	Ala	Gly	Pro	Ala	Gly						
										2945				2950				2955			
Pro	Gln	Gly	Pro	Ser	Gly	Leu	Lys	Gly	Glu	Pro	Gly	Glu	Thr	Gly	Pro						
										2965				2970				2975			
Pro	Gly	Arg	Gly	Leu	Thr	Gly	Pro	Thr	Gly	Ala	Val	Gly	Leu	Pro	Gly						
										2980				2985				2990			
Pro	Pro	Gly	Pro	Ser	Gly	Leu	Val	Gly	Pro	Gln	Gly	Ser	Pro	Gly	Leu						
										2995				3000				3005			
Pro	Gly	Gln	Val	Gly	Glu	Thr	Gly	Lys	Pro	Gly	Ala	Pro	Gly	Arg	Asp						
										3010				3015				3020			
Gly	Ala	Ser	Gly	Lys	Asp	Gly	Asp	Arg	Gly	Ser	Pro	Gly	Val	Pro	Gly						
										3025				3030				3035			
Ser	Pro	Gly	Leu	Pro	Gly	Pro	Val	Gly	Pro	Lys	Gly	Glu	Pro	Gly	Pro						
										3045				3050				3055			
Thr	Gly	Ala	Pro	Gly	Gln	Ala	Val	Val	Gly	Leu	Pro	Gly	Ala	Lys	Gly						
										3060				3065				3070			
Glu	Lys	Gly	Ala	Pro	Gly	Gly	Leu	Ala	Gly	Asp	Leu	Val	Gly	Glu	Pro						
										3075				3080				3085			
Gly	Ala	Lys	Gly	Asp	Arg	Gly	Leu	Pro	Gly	Pro	Arg	Gly	Glu	Lys	Gly						
										3090				3095				3100			
Glu	Ala	Gly	Arg	Ala	Gly	Glu	Pro	Gly	Asp	Pro	Gly	Glu	Asp	Gly	Gln						
										3105				3110				3115			
Lys	Gly	Ala	Pro	Gly	Pro	Lys	Gly	Phe	Lys	Gly	Asp	Pro	Gly	Val	Gly						

												3125				3130				3135			
Val	Pro	Gly					Pro	Pro	Gly	Pro	Pro	Gly	Val	Lys	Gly	Asp							
												3140				3145				3150			
Leu	Gly	Leu	Pro	Gly	Leu	Pro	Gly	Ala	Pro	Gly	Val	Val	Gly	Phe	Pro								
												3155				3160				3165			
Gly	Gln	Thr	Gly	Pro	Arg	Gly	Glu	Met	Gly	Gln	Pro	Gly	Pro	Ser	Gly								
												3170				3175				3180			
Glu	Arg	Gly	Leu	Ala	Gly	Pro	Pro	Gly	Arg	Glu	Gly	Ile	Pro	Gly	Pro								
												3185				3190				3195			
Leu	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Ser	Val	Gly	Pro	Pro	Gly	Ala	Ser								
												3205				3210				3215			
Gly	Leu	Lys	Gly	Asp	Lys	Gly	Asp	Pro	Gly	Val	Gly	Leu	Pro	Gly	Pro								
												3220				3225				3230			
Arg	Gly	Glu	Arg	Gly	Glu	Pro	Gly	Ile	Arg	Gly	Glu	Asp	Gly	Arg	Pro								
												3235				3240				3245			
Gly	Gln	Glu	Gly	Pro	Arg	Gly	Leu	Thr	Gly	Pro	Pro	Gly	Ser	Arg	Gly								
												3250				3255				3260			
Glu	Arg	Gly	Glu	Lys	Gly	Asp	Val	Gly	Ser	Ala	Gly	Leu	Lys	Gly	Asp								
												3265				3270				3275			
Lys	Gly	Asp	Ser	Ala	Val	Ile	Leu	Gly	Pro	Pro	Gly	Pro	Arg	Gly	Ala								
												3285				3290				3295			
Lys	Gly	Asp	Met	Gly	Glu	Arg	Gly	Pro	Arg	Gly	Leu	Asp	Gly	Asp	Lys								
												3300				3305				3310			
Gly	Pro	Arg	Gly	Asp	Asn	Gly	Asp	Pro	Gly	Asp	Lys	Gly	Ser	Lys	Gly								
												3315				3320				3325			
Glu	Pro	Gly	Asp	Lys	Gly	Ser	Ala	Gly	Leu	Pro	Gly	Leu	Arg	Gly	Leu								
												3330				3335				3340			
Leu	Gly	Pro	Gln	Gly	Gln	Pro	Gly	Ala	Ala	Gly	Ile	Pro	Gly	Asp	Pro								
												3345				3350				3355			
Gly	Ser	Pro	Gly	Lys	Asp	Gly	Val	Pro	Gly	Ile	Arg	Gly	Glu	Lys	Gly								
												3365				3370				3375			
Asp	Val	Gly	Phe	Met	Gly	Pro	Arg	Gly	Leu	Lys	Gly	Glu	Arg	Gly	Val								
												3380				3385				3390			
Lys	Gly	Ala	Cys	Gly	Leu	Asp	Gly	Glu	Lys	Gly	Asp	Lys	Gly	Glu	Ala								
												3395				3400				3405			
Gly	Pro	Pro	Gly	Arg	Pro	Gly	Leu	Ala	Gly	His	Lys	Gly	Glu	Met	Gly								
												3410				3415				3420			
Glu	Pro	Gly	Val	Pro	Gly	Gln	Ser	Gly	Ala	Pro	Gly	Lys	Glu	Gly	Leu								
												3425				3430				3435			
Ile	Gly	Pro	Lys	Gly	Asp	Arg	Gly	Phe	Asp	Gly	Gln	Pro	Gly	Pro	Lys								
												3445				3450				3455			
Gly	Asp	Gln	Gly	Glu	Lys	Gly	Glu	Arg	Gly	Thr	Pro	Gly	Ile	Gly	Gly								
												3460				3465				3470			
Phe	Pro	Gly	Pro	Ser	Gly	Asn	Asp	Gly	Ser	Ala	Gly	Pro	Pro	Gly	Pro								
												3475				3480				3485			
Pro	Gly	Ser	Val	Gly	Pro	Arg	Gly	Pro	Glu	Gly	Leu	Gln	Gly	Gln	Lys								
												3490				3495				3500			
Gly	Glu	Arg	Gly	Pro	Pro	Gly	Glu	Arg	Val	Val	Gly	Ala	Pro	Gly	Val								
												3505				3510				3515			
Pro	Gly	Ala	Pro	Gly	Glu	Arg	Gly	Glu	Gln	Gly	Arg	Pro	Gly	Pro	Ala								

	3525		3530		3535
Gly Pro Arg	Gly Glu Lys	Gly Glu Ala Ala Leu	Thr Glu Asp	Asp Ile	
	3540		3545		3550
Arg Gly Phe	Val Arg Gln	Glu Met Ser Gln His	Cys Ala Cys	Gln Gly	
	3555		3560		3565
Gln Phe Ile	Ala Ser Gly	Ser Arg Pro Leu	Pro Ser Tyr	Ala Ala Asp	
	3570		3575		3580
Thr Ala Gly	Ser Gln Leu	His Ala Val Pro	Val Leu Arg	Val Ser His	
	3585		3590		3595
Ala Glu Glu	Glu Glu Arg	Val Pro Pro	Glu Asp Asp	Glu Tyr Ser	Glu
	3605		3610		3615
Tyr Ser Glu	Tyr Ser Val	Glu Glu Tyr	Gln Asp Pro	Glu Ala Pro	Trp
	3620		3625		3630
Asp Ser Asp	Asp Pro Cys	Ser Leu Pro	Leu Asp Glu	Gly Ser Cys	Thr
	3635		3640		3645
Ala Tyr Thr	Leu Arg Trp	Tyr His Arg	Ala Val Thr	Gly Ser Thr	Glu
	3650		3655		3660
Ala Cys His	Pro Phe Val	Tyr Gly Gly	Cys Gly Gly	Asn Ala Asn	Arg
	3665		3670		3675
Phe Gly Thr	Arg Glu Ala	Cys Glu Arg	Arg Cys Pro	Pro Arg Val	Val
	3685		3690		3695
Gln Ser Gln	Gly Thr Gly	Thr Ala Gln	Asp		
	3700		3705		

<210> 29

<211> 1299

<212> DNA

<213> Homo sapiens

<400> 29

```

atgaccacct ccatccgccca gttcacctcc tccagctcca tcaagggtct ctccggcctg 60
gggggcggct cgtcccgcac ctctgcccgg ctgtctggcg gcctgggtgc cggctcctgc 120
aggctgggat ctgctggcgg cctgggcagc accctcgggg gtagcagcta ctccagctgc 180
tacagctttg gctctggtgg tggctatggc agcagctttg ggggtgttga tgggctgctg 240
gctggagggtg agaaggccac catgcagaac ctcaatgacc gcctggcctc ctacctggac 300
aaggtgcgtg ccctggagga ggccaacact gagctggagg tgaagatccg tgactggtac 360
cagaggcagg ccccggggcc cgcccgtgac tacagccagt actacaggac aattgaggag 420
ctgcagaaca agatcctcac agccaccgtg gacaatgcca acatcctgct acagattgac 480
aatgcccgtc tggctgctga tgacttccgc accaagtttg agacagagca ggccctgcgc 540
ctgagtgtgg aggccgacat caatggcctg cgcagggtgc tggatgagct gaccctggcc 600
agagccgacc tggagatgca gattgagaac ctcaaggagg agctggccta cctgaagaag 660
aaccacgagg aggagatgaa cgccctgcga ggccagggtg gtggtgagat caatgtggag 720
atggacgctg ccccgaggct ggacctgagc cgcctcctca acgagatgcg tgaccagtat 780
gagaagatgg cagagaagaa ccgcaaggat gccgaggatt ggttcttcag caagacagag 840
gaactgaacc gcgagggtgg caccaacagt gagctgggtg agagtggcaa gagtgagatc 900
tcggagctcc ggcgccacct gcaggccttg gagatagagc tgcagtccca gctcagcatg 960
aaagcatccc tggaggggcaa cctggcggag acagagaacc gctactgcgt gcagctgtcc 1020
cagatccagg ggctgattgg cagcgtggag gagcagctgg cccagcttcg ctgagagatg 1080
gagcagcaga accaggaata caaaatcctg ctggatgtga agacgcggct ggagcaggag 1140

```

```

attgccacct accgccgctt gctggaggga gaggatgccc acctgactca gtacaagaaa 1200
gaaccggtga ccacccgtca ggtgcgtacc attgtggaag aggtccagga tggcaaggct 1260
atctcctccc gcgagcaggt ccaccagacc acccgctga 1299

```

<210> 30

<211> 432

<212> PRT

<213> Homo sapiens

<400> 30

```

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

```

Lys	Ala	Ser	Leu	Glu	Gly	Asn	Leu	Ala	Glu	Thr	Glu	Asn	Arg	Tyr	Cys
				325					330					335	
Val	Gln	Leu	Ser	Gln	Ile	Gln	Gly	Leu	Ile	Gly	Ser	Val	Glu	Glu	Gln
			340					345					350		
Leu	Ala	Gln	Leu	Arg	Cys	Glu	Met	Glu	Gln	Gln	Asn	Gln	Glu	Tyr	Lys
		355					360					365			
Ile	Leu	Leu	Asp	Val	Lys	Thr	Arg	Leu	Glu	Gln	Glu	Ile	Ala	Thr	Tyr
	370					375					380				
Arg	Arg	Leu	Leu	Glu	Gly	Glu	Asp	Ala	His	Leu	Thr	Gln	Tyr	Lys	Lys
385					390				395					400	
Glu	Pro	Val	Thr	Thr	Arg	Gln	Val	Arg	Thr	Ile	Val	Glu	Glu	Val	Gln
			405						410					415	
Asp	Gly	Lys	Val	Ile	Ser	Ser	Arg	Glu	Gln	Val	His	Gln	Thr	Thr	Arg
			420					425					430		