

FP1804 Sequence Listing.TXT
SEQUENCE LISTING

<110> DAIICHI SANKYO COMPANY, LIMITED
 <120> ANTI-GPRC5D ANTIBODY AND MOLECULE COMPRISING THE ANTIBODY
 <130> FP-1804
 <150> JP2017/020220
 <151> 2017-02-07
 <160> 255
 <170> PatentIn version 3.5
 <210> 1
 <211> 27
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (27)..(27)
 <223> (27) Xaa is biotinylated Glutamic Acid

<400> 1

Met Tyr Lys Asp Cys Ile Glu Ser Thr Gly Asp Tyr Phe Leu Leu Cys
 1 5 10 15

Asp Ala Glu Gly Pro Trp Gly Ile Ile Leu Xaa
 20 25

<210> 2
 <211> 28
 <212> PRT
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (28)..(28)
 <223> (28) Xaa is biotinylated Lysine

<400> 2

Met Tyr Lys Asp Cys Ile Glu Ser Thr Gly Asp Tyr Phe Leu Leu Cys
 1 5 10 15

Asp Ala Glu Gly Pro Trp Gly Ile Ile Leu Glu Xaa
 20 25

<210> 3
 <211> 29
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> primer for amplifying cDNA encoding 2A4 VH by PCR

<400> 3
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<210> 4
 <211> 366
 <212> DNA
 <213> Rattus norvegicus

<400> 4
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 cctggacagg gccttgagtg gatcggatat gtttatcctg gatatggtgg tacttactac 180
 agtgataagt tcaagggcaa agccacattt actgcagaca catcctccag cacagcctac 240
 atgctactgg gcagcctgac acctgaggac tctgctgact atttctgtgc aagacggaag 300
 ggtataattc ggggtccggg gtactttgat tactggggcc aaggagtcac ggtcacagtc 360
 tcctca 366

<210> 5
 <211> 122
 <212> PRT
 <213> Rattus norvegicus

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

<210> 6
 <211> 369
 <212> DNA
 <213> Rattus norvegicus

<400> 6
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cagccttcag ggaaggggtct ggagtggctg gcaaacattt ggtgggatga tgataagtac	180
tacaatccat ctctgagaaa ccggctcaca atctccaagg acacctccaa caaccaagca	240
ttcctcaaga tcaccaatgt ggacactgca gatactgcca catactactg tgctcggatc	300
gaaactgtcc ggggtttcccg taaggggttt gctcactggg gccaaaggcac tctggtcact	360
gtctcttca	369

<210> 7
 <211> 123
 <212> PRT
 <213> Rattus norvegicus

<400> 7

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

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

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

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

Phe	Leu	Lys	Ile	Thr	Asn	Val	Asp	Thr	Ala	Asp	Thr	Ala	Thr	Tyr	Tyr
				85					90					95	

Cys	Ala	Arg	Ile	Glu	Thr	Val	Arg	Val	Ser	Arg	Lys	Gly	Phe	Ala	His
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Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser
		115					120			

<210> 8
 <211> 369
 <212> DNA
 <213> Rattus norvegicus

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acctgttctg tctactgggtta caccattacc agtgggttatg attggagctg gatccggaag	120
ttcccaggaa ataaaatgga gtggatggca tacatgagct atagaggtag cactaactac	180
aaccctcgc tcaaaagtcg aatctccatt acaagagaca catccaagaa tcagttcttc	240
ctgcagttga attctgtcac tactgaggat acagccacat attactgtgc cctaacaagg	300

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acctattggt ataactatta ctatgttttg gatgcctggg gtcaaggagc ttcagtcact 360
gtctcctca 369

<210> 9
<211> 123
<212> PRT
<213> Rattus norvegicus

<400> 9

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

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

Tyr Asp Trp Ser Trp Ile Arg Lys Phe Pro Gly Asn Lys Met Glu Trp
35 40 45

Met Ala Tyr Met Ser Tyr Arg Gly Ser Thr Asn Tyr Asn Pro Ser Leu
50 55 60

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

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

Ala Leu Thr Arg Thr Tyr Trp Tyr Asn Tyr Tyr Tyr Val Leu Asp Ala
100 105 110

Trp Gly Gln Gly Ala Ser Val Thr Val Ser Ser
115 120

<210> 10
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> primer for amplifying cDNA of 2A4_VH by PCR

<400> 10
tcagtaacac tgtccaggac accatctc 28

<210> 11
<211> 321
<212> DNA
<213> Rattus norvegicus

<400> 11
gacatccaga tgacacagtc tccagcttcc ctgtctgcat ctctgggaga aactgtctcc 60

atcgaatgtc ttgcaagtga gggcatttcc aatagtttag cgtgggtatca gcagaagcca 120

gggaaatctc ctgagctcct gatctatggt gcaagtagct tgcaagacgg ggtcccatca 180

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cggttcagtg gcagtggttc tggcacgcag tattctctca agatcagcgg catgcaacct 240
 gaagatgaag ggctttatta ctgtcaacag ggttacaagt atcctccgac gttcgggtgga 300
 ggcaccaagc tggaattgaa a 321

<210> 12
 <211> 107
 <212> PRT
 <213> Rattus norvegicus

<400> 12

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

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

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

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

Ser Gly Ser Gly Thr Gln Tyr Ser Leu Lys Ile Ser Gly Met Gln Pro
 65 70 75 80

Glu Asp Glu Gly Leu Tyr Tyr Cys Gln Gln Gly Tyr Lys Tyr Pro Pro
 85 90 95

Thr Phe Gly Gly Gly Thr Lys Leu Glu Leu Lys
 100 105

<210> 13
 <211> 321
 <212> DNA
 <213> Rattus norvegicus

<400> 13

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 ctgaactgca aggccagtca gagtgtgggt attaatgtag actggtacca acagacacca 120
 gggcagtctc ctaaactgct gatatatggg gcatccaacc ggcacactgg ggtccctgat 180
 cgcttcacag gcagtggtt tgggagagat ttcactctca ccatcagcaa cgtggaggct 240
 gaagacctgg ctgtttatta ctgtctgcag catgggtcca ttcctccgac gttcgggtgga 300
 ggcaccaagc tggaattgaa a 321

<210> 14
 <211> 107
 <212> PRT
 <213> Rattus norvegicus

<400> 14

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

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

Val Asp Trp Tyr Gln Gln Thr Pro Gly Gln Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Gly Ala Ser Asn Arg His Thr Gly Val Pro Asp Arg Phe Thr Gly
50 55 60

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

Glu Asp Leu Ala Val Tyr Tyr Cys Leu Gln His Gly Ser Ile Pro Pro
85 90 95

Thr Phe Gly Gly Gly Thr Lys Leu Glu Leu Lys
100 105

<210> 15
<211> 318
<212> DNA
<213> Rattus norvegicus

<400> 15
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ggagaacctc ccaaactcct gatataataat acaaacaatt tgcatacggg catcccatca 180
aggttcagtg gcagtggatc tggtagatg tacacactca ccatcagcgg cctgcagcct 240
gaagatgttg ccacatattt ctgcttgtag cgtaatagtt ggtacacggt tggagctggg 300
accaagctgg aactgaaa 318

<210> 16
<211> 106
<212> PRT
<213> Rattus norvegicus

<400> 16
Asp Ile Gln Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

Tyr Asn Thr Asn Asn Leu His Thr Gly Ile Pro Ser Arg Phe Ser Gly

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50

55

60

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

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

Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
100 105

<210> 17
<211> 449
<212> DNA
<213> Artificial Sequence

<220>
<223> DNA fragment comprising DNA sequence encoding amino acid
sequence of human k-chain of secretion signal sequence and human
k-chain of constant region

<400> 17
gcctccggac tctagagcca ccatggtgct gcagaccag gtgttcatt ccctgctgct 60
gtggatctcc ggcgcgtacg gcgatatcgt gatgattaaa cgtacggtgg ccgccccctc 120
cgtgttcatt tccccccct ccgacgagca gctgaagtcc ggcaccgcct ccgtggtgtg 180
cctgctgaat aacttctacc ccagagaggg caaggtgcag tggaaggtgg acaacgcct 240
gcagtccggg aactcccagg agagcgtgac cgagcaggac agcaaggaca gcacctacag 300
cctgagcagc accctgacct tgagcaaagc cgactacgag aagcacaagg tgtacgcctg 360
cgaggtgacc caccagggcc tgagctcccc cgtcaccaag agcttcaaca ggggggagtg 420
ttaggggccc gtttaaaccg gggaggcta 449

<210> 18
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> primer F for expression vector of VL

<400> 18
tataccgtcg acctctagct agagcttggc 30

<210> 19
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> primer R for expression vector of VL

<400> 19
gctatggcag ggccctgccgc cccgacgttg 30

<210> 20

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<211> 1132
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> DNA fragment comprising DNA sequence encoding amino acid sequence of human heavy chain of signal sequence and human IgG1 constant region

<400> 20
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 tccagatgg gtgtgagcc aggtgcaatt gtgcaggcgg ttagctcagc ctccaccaag 120
 ggcccaagcg tcttccccct ggcaccctcc tccaagagca cctctggcgg cacagccgcc 180
 ctgggctgcc tgggtcaagga ctacttcccc gaaccctga ccgtgagctg gaactcaggc 240
 gccctgacca gcggcgtgca caccttcccc gctgtcctgc agtcctcagg actctactcc 300
 ctcagcagcg tgggtgaccgt gccctccagc agcttgggca cccagacctt catctgcaac 360
 gtgaatcaca agcccagcaa caccaagggt gacaagagag ttgagcccaa atcttgtgac 420
 aaaactcaca catgcccacc ctgcccagca cctgaactcc tgggggggacc ctcagtcttc 480
 ctcttcccc caaaacccaa ggacaccctc atgatctccc ggaccctga ggtcacatgc 540
 gtggtggtgg acgtgagcca cgaagaccct gaggtcaagt tcaactggta cgtggacggc 600
 gtggagggtgc ataatgccaa gacaaagccc cgggaggagc agtacaacag cacgtaccgg 660
 gtggtcagcg tcctcaccgt cctgcaccag gactggctga atggcaagga gtacaagtgc 720
 aaggtctcca acaaagccct cccagcccc atcgagaaaa ccatctcaa agccaaaggc 780
 cagccccggg aaccacaggt gtacaccctg ccccatccc gggaggagat gaccaagaac 840
 caggtcagcc tgacctgcct ggtcaaaggc ttctatccca gcgacatcg cgtggagtgg 900
 gagagcaatg gccagcccga gaacaactac aagaccaccc ctcccgtgct ggactccgac 960
 ggctccttct tcctctacag caagctcacc gtggacaaga gcagggtggc gcagggcaac 1020
 gtcttctcat gctccgtgat gcatgaggct ctgcacaacc actacacca gaagagcctc 1080
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<210> 21
 <211> 702
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> nucleotide sequence of c2A4 L

<400> 21
 atggtgctgc agaccaggt gttcatctcc ctgctgctgt ggatctccgg cgcgtacggc 60
 gacatccaga tgacacagtc tccagcttcc ctgtctgcat ctctgggaga aactgtctcc 120
 atcgaatgtc ttgcaagtga gggcatttcc aatagtttag cgtggatatc gcagaagcca 180
 gggaaatctc ctcagctcct gatctatggt gcaagtagct tgcaagacgg ggtcccatca 240
 cggttcagtg gcagtgggtc tggcacgcag tattctctca agatcagcg catgcaacct 300

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gaagatgaag ggctttatta ctgtcaacag ggttacaagt atcctccgac gttcgggtgga	360
ggcaccaagc tggaattgaa acgggctgtg gccgccccct ccgtgttcat cttccccccc	420
tccgacgagc agctgaagtc cggcaccgcc tccgtggtgt gcctgctgaa taacttctac	480
cccagagagg ccaaggtgca gtggaaggtg gacaacgccc tgcagtccgg gaactcccag	540
gagagcgtga ccgagcagga cagcaaggac agcacctaca gcctgagcag caccctgacc	600
ctgagcaaag ccgactacga gaagcacaag gtgtacgcct gcgaggtgac ccaccagggc	660
ctgagctccc ccgtcaccaa gagcttcaac aggggggagt gt	702

<210> 22
 <211> 234
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of c2A4 L
 <400> 22

Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser	
1 5 10 15	

Gly Ala Tyr Gly Asp Ile Gln Met Thr Gln Ser Pro Ala Ser Leu Ser	
20 25 30	

Ala Ser Leu Gly Glu Thr Val Ser Ile Glu Cys Leu Ala Ser Glu Gly	
35 40 45	

Ile Ser Asn Ser Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ser Pro	
50 55 60	

Gln Leu Leu Ile Tyr Gly Ala Ser Ser Leu Gln Asp Gly Val Pro Ser	
65 70 75 80	

Arg Phe Ser Gly Ser Gly Ser Gly Thr Gln Tyr Ser Leu Lys Ile Ser	
85 90 95	

Gly Met Gln Pro Glu Asp Glu Gly Leu Tyr Tyr Cys Gln Gln Gly Tyr	
100 105 110	

Lys Tyr Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu Glu Leu Lys Arg	
115 120 125	

Ala Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln	
130 135 140	

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr	
145 150 155 160	

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser	
165 170 175	

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Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
180 185 190

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
195 200 205

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
210 215 220

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230

<210> 23
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> primer set F for c2A4 L

<400> 23
atctccggcg cgtagggcga catccagatg acacagtctc cagc 44

<210> 24
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> primer set R for c2A4 L

<400> 24
ggagggggcg gccacagccc gtttcaattc cagcttggtg cctc 44

<210> 25
<211> 1413
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of c2A4 H

<400> 25
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gtccagttgc agcaatctgg agctgagctg gctaaacctg ggacttcagt gaagctgtcc 120
tgcaaggctt ctggctatac cttcaccagc tactatattt actgggtaaa gcagaggcct 180
ggacagggcc ttgagtggat cggatatgtt tatcctggat atggtggtac ttactacagt 240
gataagttca agggcaaagc cacatttact gcagacacat cctccagcac agcctacatg 300
ctactgggca gcctgacacc tgaggactct gcgtactatt tctgtgcaag acggaagggt 360
ataattcggg gtccggggta ctttgattac tggggccaag gagtcatggt cacagtcagc 420
tcagcctcca ccaagggccc aagcgtcttc cccctggcac cctcctcaa gagcacctct 480
ggcggcacag ccgccctggg ctgcctgggtc aaggactact tccccgaacc cgtgaccgtg 540

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agctggaact caggcgccct gaccagcggc gtgcacacct tccccgctgt cctgcagtcc      600
tcaggactct actccctcag cagcgtggtg accgtgccct ccagcagctt gggcaccag      660
acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gagagttag      720
cccaaattct gtgacaaaac tcacacatgc ccaccctgcc cagcacctga actcctgggg      780
ggaccctcag tcttctcttt cccccaaaaa cccaaggaca ccctcatgat ctcccggacc      840
cctgaggtca catgcgtggt ggtggacgtg agccacgaag accctgaggt caagttcaac      900
tggtacgtgg acggcgtgga ggtgcataat gccaagacaa agccccggga ggagcagtag      960
aacagcacgt accgggtggt cagcgtcctc accgtcctgc accaggactg gctgaatggc     1020
aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc     1080
tccaaagcca aaggccagcc ccgggaacca caggtgtaca ccctgcccc atcccgggag     1140
gagatgacca agaaccaggt cagcctgacc tgcttggtca aaggcttcta tcccagcgac     1200
atcgccgtgg agtgggagag caatggccag cccgagaaca actacaagac caccctccc     1260
gtgctggact ccgacggctc cttcttcctc tacagcaagc tcaccgtgga caagagcagg     1320
tggcagcagg gcaacgtctt ctcatgctcc gtgatgcatg aggctctgca caaccactac     1380
accagaaga gcctctccct gtctcccggc aaa                                  1413

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<210> 26
 <211> 471
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of c2A4 H

<400> 26

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
 1 5 10 15

Val Leu Ser Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Ala Lys
 20 25 30

Pro Gly Thr Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe
 35 40 45

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

Glu Trp Ile Gly Tyr Val Tyr Pro Gly Tyr Gly Gly Thr Tyr Tyr Ser
 65 70 75 80

Asp Lys Phe Lys Gly Lys Ala Thr Phe Thr Ala Asp Thr Ser Ser Ser
 85 90 95

Thr Ala Tyr Met Leu Leu Gly Ser Leu Thr Pro Glu Asp Ser Ala Tyr
 100 105 110

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Tyr Phe Cys Ala Arg Arg Lys Gly Ile Ile Arg Gly Pro Gly Tyr Phe
 115 120 125
 Asp Tyr Trp Gly Gln Gly Val Met Val Thr Val Ser Ser Ala Ser Thr
 130 135 140
 Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser
 145 150 155 160
 Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
 165 170 175
 Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
 180 185 190
 Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
 195 200 205
 Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys
 210 215 220
 Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu
 225 230 235 240
 Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
 245 250 255
 Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
 260 265 270
 Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
 275 280 285
 Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
 290 295 300
 Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
 305 310 315 320
 Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
 325 330 335
 Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
 340 345 350
 Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
 355 360 365
 Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys
 370 375 380

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Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
385 390 395 400

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
405 410 415

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
420 425 430

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
435 440 445

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
450 455 460

Leu Ser Leu Ser Pro Gly Lys
465 470

<210> 27
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> primer set F for c2A4 H

<400> 27
ccagatgggt gctgagccag gtccagttgc agcaatctgg agctg 45

<210> 28
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> primer set R for c2A4 H

<400> 28
cttggtggag gctgagctga ctgtgaccat gactccttgg ccccag 46

<210> 29
<211> 702
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of c2B1 L

<400> 29
atggtgctgc agaccaggt gttcatctcc ctgctgctgt ggatctccgg cgcgtacggc 60

gaaactgtga tgaccagtc tccacatcc atgtccacat caataggaga gagggtcacc 120

ctgaactgca aggcagtc gagtgtgggt attaatgtag actggtacca acagacacca 180

gggcagtctc ctaaactgct gatatatggg gcatccaacc ggcacactgg ggtccctgat 240

cgcttcacag gcagtggatt tgggagagat ttcactctca ccatcagcaa cgtggaggct 300

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gaagacctgg ctgtttatta ctgtctgcag catgggtcca ttctccgac gttcgggtgga 360
 ggcaccaagc tggaattgaa acgggctgtg gccgccccct ccgtgttcat cttccccccc 420
 tccgacgagc agctgaagtc cggcaccgcc tccgtggtgt gcctgctgaa taacttctac 480
 cccagagagg ccaaggtgca gtggaagggtg gacaacgccc tgcagtccgg gaactcccag 540
 gagagcgtga ccgagcagga cagcaaggac agcacctaca gcctgagcag caccctgacc 600
 ctgagcaaag ccgactacga gaagcacaag gtgtacgcct gcgaggtgac ccaccagggc 660
 ctgagctccc ccgtcaccaa gagcttcaac agggggggagt gt 702

<210> 30
 <211> 234
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of c2B1 L

<400> 30

Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
 1 5 10 15

Gly Ala Tyr Gly Glu Thr Val Met Thr Gln Ser Pro Thr Ser Met Ser
 20 25 30

Thr Ser Ile Gly Glu Arg Val Thr Leu Asn Cys Lys Ala Ser Gln Ser
 35 40 45

Val Gly Ile Asn Val Asp Trp Tyr Gln Gln Thr Pro Gly Gln Ser Pro
 50 55 60

Lys Leu Leu Ile Tyr Gly Ala Ser Asn Arg His Thr Gly Val Pro Asp
 65 70 75 80

Arg Phe Thr Gly Ser Gly Phe Gly Arg Asp Phe Thr Leu Thr Ile Ser
 85 90 95

Asn Val Glu Ala Glu Asp Leu Ala Val Tyr Tyr Cys Leu Gln His Gly
 100 105 110

Ser Ile Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu Glu Leu Lys Arg
 115 120 125

Ala Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
 130 135 140

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
 145 150 155 160

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
 165 170 175

FP1804 Sequence Listing.TXT

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
180 185 190

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
195 200 205

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
210 215 220

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230

<210> 31
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> primer set F for c2B1 L

<400> 31
atctccggcg cgtacggcga aactgtgatg acccagtctc ccac

44

<210> 32
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> primer set R for c2B1 L

<400> 32
ggagggggcg gccacagccc gtttcaattc cagcttggtg cctc

44

<210> 33
<211> 1416
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of c2B1 H

<400> 33
atgaaacacc tgtggttctt cctcctgctg gtggcagctc ccagatgggt gctgagccag 60
gttactctga aagagtctgg ccctgggata ttgcagccct cccagaccct cagtctgact 120
tgcactttct ctgggttttc actgaacact tatgatatgg gtgtgggctg gattcgtcag 180
ccttcagggg aggggtctgga gtggctggca aacatttggt gggatgatga taagtactac 240
aatccatctc tgagaaaccg gtcacaatc tccaaggaca cctccaacaa ccaagcattc 300
ctcaagatca ccaatgtgga cactgcagat actgccacat actactgtgc tcggatcgaa 360
actgtccggg tttcccgtaa ggggtttgct cactggggcc aaggcactct ggctactgtc 420
agctcagcct ccaccaaggg cccaagcgtc ttccccctgg caccctcctc caagagcacc 480
tctggcggca cagccgcctt gggctgcctg gtcaaggact acttccccga acccgtgacc 540

FP1804 Sequence Listing.TXT

gtgagctgga actcaggcgc cctgaccagc ggcgtgcaca ccttccccgc tgtcctgcag 600
tcctcaggac tctactccct cagcagcgtg gtgaccgtgc cctccagcag cttgggcacc 660
cagacctaca tctgcaacgt gaatcacaag cccagcaaca ccaaggtgga caagagagtt 720
gagcccaa at cttgtgacaa aa ttcacaca tgccccacct gccagcacc tgaactcctg 780
ggggggaccct cagtcttcct cttcccccca aaaccaagg acaccctcat gatctcccg 840
acccctgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagttc 900
aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccccg ggaggagcag 960
tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat 1020
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc 1080
atctccaaag ccaaaggcca gccccgggaa ccacaggtgt acaccctgcc cccatccccg 1140
gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc 1200
gacatcgccg tggagtggga gagcaatggc cagccccgaga acaactacaa gaccaccct 1260
cccgctgctgg actccgacgg ctcttctctc ctctacagca agctcaccgt ggacaagagc 1320
aggtggcagc agggcaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac 1380
tacaccaga agagcctctc cctgtctccc ggcaaa 1416

<210> 34
<211> 472
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of c2B1 H
<400> 34

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

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

Pro Ser Gln Thr Leu Ser Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu
35 40 45

Asn Thr Tyr Asp Met Gly Val Gly Trp Ile Arg Gln Pro Ser Gly Lys
50 55 60

Gly Leu Glu Trp Leu Ala Asn Ile Trp Trp Asp Asp Asp Lys Tyr Tyr
65 70 75 80

Asn Pro Ser Leu Arg Asn Arg Leu Thr Ile Ser Lys Asp Thr Ser Asn
85 90 95

Asn Gln Ala Phe Leu Lys Ile Thr Asn Val Asp Thr Ala Asp Thr Ala
100 105 110

FP1804 Sequence Listing.TXT

Thr Tyr Tyr Cys Ala Arg Ile Glu Thr Val Arg Val Ser Arg Lys Gly
115 120 125

Phe Ala His Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser
130 135 140

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
145 150 155 160

Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
165 170 175

Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
180 185 190

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
195 200 205

Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
210 215 220

Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val
225 230 235 240

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
245 250 255

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
260 265 270

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
275 280 285

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
290 295 300

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
305 310 315 320

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
325 330 335

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
340 345 350

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
355 360 365

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
370 375 380

FP1804 Sequence Listing.TXT

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

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
405 410 415

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
420 425 430

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
435 440 445

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
450 455 460

Ser Leu Ser Leu Ser Pro Gly Lys
465 470

<210> 35
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> primer set F for c2B1 H

<400> 35
ccagatgggt gctgagccag gttactctga aagagtctgg ccctg 45

<210> 36
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> primer set R for c2B1 H

<400> 36
cttggtggag gctgagctga cagtgaccag agtgccttgg cccag 46

<210> 37
<211> 699
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of c7B4 L

<400> 37
atggtgctgc agaccaggt gttcatctcc ctgctgctgt ggatctccgg cgcgtacggc 60
gacatccaga tgaccagtc tccttcattc ctgtctgcat ctgtgggaga aagagtcact 120
ctcagctgca aagcaagtca gaatattaac aagtacttag actggtatca gaaaagctt 180
ggagaacctc ccaaactcct gatataaat acaaacaatt tgcatacggg catcccatca 240
aggttcagtg gcagtggatc tggtagatg tacacactca ccatcagcgg cctgcagcct 300

FP1804 Sequence Listing.TXT

gaagatgttg ccacatattt ctgcttgacg cgtaatagtt ggtacacggt tggagctggg	360
accaagctgg aactgaaacg ggctgtggcc gccccctccg tgttcattct cccccctcc	420
gacgagcagc tgaagtccgg caccgcctcc gtggtgtgcc tgctgaataa cttctacccc	480
agagaggcca aggtgcagtg gaaggtggac aacgccctgc agtccgggaa ctcccaggag	540
agcgtgaccg agcaggacag caaggacagc acctacagcc tgagcagcac cctgaccctg	600
agcaaagccg actacgagaa gcacaaggtg tacgcctgcg aggtgacca ccagggcctg	660
agctcccccg tcaccaagag cttcaacagg ggggagtg	699

<210> 38
 <211> 233
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of c7B4 L

<400> 38

Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser	
1 5 10 15	

Gly Ala Tyr Gly Asp Ile Gln Met Thr Gln Ser Pro Ser Phe Leu Ser	
20 25 30	

Ala Ser Val Gly Glu Arg Val Thr Leu Ser Cys Lys Ala Ser Gln Asn	
35 40 45	

Ile Asn Lys Tyr Leu Asp Trp Tyr Gln Gln Lys Leu Gly Glu Pro Pro	
50 55 60	

Lys Leu Leu Ile Tyr Asn Thr Asn Asn Leu His Thr Gly Ile Pro Ser	
65 70 75 80	

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser	
85 90 95	

Gly Leu Gln Pro Glu Asp Val Ala Thr Tyr Phe Cys Leu Gln Arg Asn	
100 105 110	

Ser Trp Tyr Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Arg Ala	
115 120 125	

Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu	
130 135 140	

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

Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly	
165 170 175	

FP1804 Sequence Listing.TXT

Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr
180 185 190

Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His
195 200 205

Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val
210 215 220

Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230

<210> 39
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> primer set F for c7B4 L

<400> 39
atctccggcg cgtacggcga catccagatg acccagtctc cttc 44

<210> 40
<211> 44
<212> DNA
<213> Artificial Sequence

<220>
<223> primer set R for c7B4 L

<400> 40
ggagggggcg gccacagccc gtttcagttc cagcttggtc ccag 44

<210> 41
<211> 1416
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of c7B4 H

<400> 41
atgaaacacc tgtggttctt cctcctgctg gtggcagctc ccagatgggt gctgagcgag 60
atacacctgc aggagtcagg acctggcctt gtgaaacctt cacagtcact ctccctcacc 120
tgttctgtca ctggttacac cattaccagt ggttatgatt ggagctggat ccggaagtgc 180
ccaggaaata aaatggagtg gatggcatac atgagctata gaggtagcac taactacaac 240
ccctcgctca aaagtcgaat ctccattaca agagacacat ccaagaatca gttcttcctg 300
cagttgaatt ctgtcactac tgaggataca gccacatatt actgtgccct aacaaggacc 360
tattggtata actattacta tgttttggat gcctgggggtc aaggagcttc agtcactgtc 420
agctcagcct ccaccaaggg cccaagcgtc ttccccctgg caccctcctc caagagcacc 480
tctggcggca cagccgccct gggctgcctg gtcaaggact acttccccga acccgtgacc 540

FP1804 Sequence Listing.TXT

gtgagctgga actcaggcgc cctgaccagc ggcgtgcaca ccttccccgc tgtcctgcag	600
tcctcaggac tctactccct cagcagcgtg gtgaccgtgc cctccagcag cttgggcacc	660
cagacctaca tctgcaacgt gaatcacaag cccagcaaca ccaaggtgga caagagagtt	720
gagcccaaat cttgtgacaa aactcacaca tgcccaccct gcccagcacc tgaactcctg	780
ggggggaccct cagtcttcct cttcccccca aaacccaagg acaccctcat gatctcccg	840
acccttgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagttc	900
aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccccg ggaggagcag	960
tacaacagca cgtaccgggt ggtcagcgtc ctaccgtcc tgcaccagga ctggctgaat	1020
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc	1080
atctccaaag ccaaaggcca gccccgggaa ccacaggtgt acaccctgcc cccatcccgg	1140
gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc	1200
gacatcgccg tggagtggga gagcaatggc cagcccagaga acaactacaa gaccaccct	1260
cccgtgctgg actccgacgg ctctttcttc ctctacagca agctcaccgt ggacaagagc	1320
aggtggcagc agggcaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac	1380
tacaccaga agagcctctc cctgtctccc ggcaaa	1416

<210> 42
 <211> 472
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of c7B4 H

<400> 42

Met	Lys	His	Leu	Trp	Phe	Phe	Leu	Leu	Leu	Val	Ala	Ala	Pro	Arg	Trp
1			5						10					15	

Val	Leu	Ser	Glu	Ile	His	Leu	Gln	Glu	Ser	Gly	Pro	Gly	Leu	Val	Lys
			20					25					30		

Pro	Ser	Gln	Ser	Leu	Ser	Leu	Thr	Cys	Ser	Val	Thr	Gly	Tyr	Thr	Ile
		35					40					45			

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

Met	Glu	Trp	Met	Ala	Tyr	Met	Ser	Tyr	Arg	Gly	Ser	Thr	Asn	Tyr	Asn
65				70						75				80	

Pro	Ser	Leu	Lys	Ser	Arg	Ile	Ser	Ile	Thr	Arg	Asp	Thr	Ser	Lys	Asn
				85					90					95	

Gln	Phe	Phe	Leu	Gln	Leu	Asn	Ser	Val	Thr	Thr	Glu	Asp	Thr	Ala	Thr
			100					105					110		

FP1804 Sequence Listing.TXT

Tyr Tyr Cys Ala Leu Thr Arg Thr Tyr Trp Tyr Asn Tyr Tyr Tyr Val
 115 120 125
 Leu Asp Ala Trp Gly Gln Gly Ala Ser Val Thr Val Ser Ser Ala Ser
 130 135 140
 Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
 145 150 155 160
 Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
 165 170 175
 Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
 180 185 190
 His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
 195 200 205
 Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
 210 215 220
 Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val
 225 230 235 240
 Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
 245 250 255
 Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
 260 265 270
 Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
 275 280 285
 Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
 290 295 300
 Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
 305 310 315 320
 Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
 325 330 335
 Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
 340 345 350
 Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
 355 360 365
 Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
 370 375 380

FP1804 Sequence Listing.TXT

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

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
405 410 415

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
420 425 430

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
435 440 445

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
450 455 460

Ser Leu Ser Leu Ser Pro Gly Lys
465 470

<210> 43
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> primer set F for c7B4 H

<400> 43
ccagatgggt gctgagcgag atacacctgc aggagtcagg acctg

45

<210> 44
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> primer set R for c7B4 H

<400> 44
cttggtggag gctgagctga cagtgactga agctccttga ccccag

46

<210> 45
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of 2A4 H CDR1

<400> 45

Gly Tyr Thr Phe Thr Ser Tyr Tyr
1 5

<210> 46
<211> 8
<212> PRT
<213> Artificial Sequence

FP1804 Sequence Listing.TXT

<220>

<223> amino acid sequence of 2A4 H CDR2

<400> 46

Val Tyr Pro Gly Tyr Gly Gly Thr
1 5

<210> 47

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of 2A4 H CDR3

<400> 47

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

<210> 48

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of 2B1 H CDR1

<400> 48

Gly Phe Ser Leu Asn Thr Tyr Asp Met Gly
1 5 10

<210> 49

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of 2B1 H CDR2

<400> 49

Ile Trp Trp Asp Asp Asp Lys
1 5

<210> 50

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of 2B1 H CDR3

<400> 50

Ala Arg Ile Glu Thr Val Arg Val Ser Arg Lys Gly Phe Ala His
1 5 10 15

<210> 51

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of 7B4 H CDR1

<400> 51

Gly Tyr Thr Ile Thr Ser Gly Tyr Asp
1 5

<210> 52

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of 7B4 H CDR2

<400> 52

Met Ser Tyr Arg Gly Ser Thr
1 5

<210> 53

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of 7B4 H CDR3

<400> 53

Ala Leu Thr Arg Thr Tyr Trp Tyr Asn Tyr Tyr Tyr Val Leu Asp Ala
1 5 10 15

<210> 54

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of 2A4 L CDR1

<400> 54

Glu Gly Ile Ser Asn Ser
1 5

<210> 55

<211> 3

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of 2A4 L CDR2

<400> 55

Gly Ala Ser
1

<210> 56

FP1804 Sequence Listing.TXT

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

<220>
 <223> amino acid sequence of 2A4 L CDR3
 <400> 56

Gln Gln Gly Tyr Lys Tyr Pro Pro Thr
 1 5

<210> 57
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of 2B1 L CDR1
 <400> 57

Gln Ser Val Gly Ile Asn
 1 5

<210> 58
 <211> 3
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of 2B1 L CDR2
 <400> 58

Gly Ala Ser
 1

<210> 59
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of 2B1 L CDR3
 <400> 59

Leu Gln His Gly Ser Ile Pro Pro Thr
 1 5

<210> 60
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of 7B4 L CDR1
 <400> 60

Gln Asn Ile Asn Lys Tyr
 1 5

FP1804 Sequence Listing.TXT

<210> 61
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of 7B4 L CDR2

<400> 61

Asn Thr Asn
1

<210> 62
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of 7B4 L CDR3

<400> 62

Leu Gln Arg Asn Ser Trp Tyr Thr
1 5

<210> 63
<211> 702
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of h2B1_L1

<400> 63
atggtgctgc agaccaggt gttcatctcc ctgctgctgt ggatctccgg cgcgtacggc 60
gataccgtga tgaccagag ccctgacagc ctggccgtgt ctctgggaga gagagccacc 120
atcaactgca aggccagcca gagcgtgggc atcaacgtgg actggtatca gcagaagccc 180
ggccagcccc ccaagctgct gatctacggc gccagcaata gacacaccgg cgtgcccgat 240
agattcagcg gctctggcag cggcagagac ttcaccctga ccatcagctc cctgcaggcc 300
gaggatgtgg ccgtgtacta ctgtctgcag cacggcagca tccccccac atttggccag 360
ggcaccaagg tggaaatcaa gcgtacggtg gccgccccct ccgtgttcat cttccccccc 420
tccgacgagc agctgaagtc cggcaccgcc tccgtggtgt gcctgctgaa taacttctac 480
cccagagagg ccaaggtgca gtggaaggtg gacaacgccc tgcagtccgg gaactcccag 540
gagagcgtga ccgagcagga cagcaaggac agcacctaca gcctgagcag caccctgacc 600
ctgagcaaag ccgactacga gaagcacaag gtgtacgcct gcgaggtgac ccaccagggc 660
ctgagctccc ccgtcaccaa gagcttcaac agggggggagt gt 702

<210> 64
<211> 234
<212> PRT
<213> Artificial Sequence

FP1804 Sequence Listing.TXT

<220>

<223> amino acid sequence of h2B1_L1

<400> 64

Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
1 5 10 15

Gly Ala Tyr Gly Asp Thr Val Met Thr Gln Ser Pro Asp Ser Leu Ala
20 25 30

Val Ser Leu Gly Glu Arg Ala Thr Ile Asn Cys Lys Ala Ser Gln Ser
35 40 45

Val Gly Ile Asn Val Asp Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
50 55 60

Lys Leu Leu Ile Tyr Gly Ala Ser Asn Arg His Thr Gly Val Pro Asp
65 70 75 80

Arg Phe Ser Gly Ser Gly Ser Gly Arg Asp Phe Thr Leu Thr Ile Ser
85 90 95

Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Leu Gln His Gly
100 105 110

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

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
130 135 140

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
145 150 155 160

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
165 170 175

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
180 185 190

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
195 200 205

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
210 215 220

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230

<210> 65

<211> 702

<212> DNA

FP1804 Sequence Listing.TXT

<213> Artificial Sequence

<220>

<223> nucleotide sequence of h2B1_L2

<400> 65

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gataccgtga tgaccagag ccctgacagc ctggccgtgt ctctgggaga gagagccacc	120
atcaactgca aggccagcca gagcgtgggc atcaacgtgg actggtatca gcagaagccc	180
ggccagcccc ccaagctgct gatctacggc gccagcaata gacacaccgg cgtgcccgat	240
agattcagcg gcagcggctt cggcaccgac ttcaccctga caatcagctc cctgcaggcc	300
gaggacgtgg ccgtgtacta ctgtctgcag cacggcagca tccccccac atttgccag	360
ggcaccaagg tggaaatcaa gcgtacggtg gccgccccct ccgtgttcat cttccccccc	420
tccgacgagc agctgaagtc cggcaccgcc tccgtggtgt gcctgctgaa taacttctac	480
cccagagagg ccaaggtgca gtggaagggtg gacaacgccc tgcagtccgg gaactcccag	540
gagagcgtga ccgagcagga cagcaaggac agcacctaca gcctgagcag caccctgacc	600
ctgagcaaag ccgactacga gaagcacaag gtgtacgcct gcgaggtgac ccaccagggc	660
ctgagctccc ccgtcaccaa gagcttcaac agggggggagt gt	702

<210> 66

<211> 234

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of h2B1_L2

<400> 66

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

FP1804 Sequence Listing.TXT

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

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
130 135 140

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
145 150 155 160

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
165 170 175

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
180 185 190

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
195 200 205

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
210 215 220

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230

<210> 67
<211> 702
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of h2B1_L3

<400> 67
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gataccgtga tgaccagag ccctgacagc ctggccgtgt ctctgggaga gagagccacc 120
atcaactgca aggccagcca gagcgtgggc atcaacgtgg actggtatca gcagaagccc 180
ggccagcccc ccaagctgct gatctacggc gccagcaata gacacaccgg cgtgcccgat 240
agattcagcg gcagcggctt cggcagagac ttcaccctga ccatcagctc cctgcaggcc 300
gaggatgtgg ccgtgtacta ctgtctgcag cacggcagca tccccccac atttggccag 360
ggcaccaagg tggaaatcaa gcgtacggtg gccgccccct ccgtgttcat cttccccccc 420
tccgacgagc agctgaagtc cggcaccgcc tccgtggtgt gcctgctgaa taacttctac 480
cccagagagg ccaaggtgca gtggaagggtg gacaacgccc tgcagtccgg gaactcccag 540
gagagcgtga ccgagcagga cagcaaggac agcacctaca gcctgagcag caccctgacc 600
ctgagcaaag ccgactacga gaagcacaag gtgtacgcct gcgaggtgac ccaccagggc 660
ctgagctccc ccgtcaccaa gagcttcaac aggggggagt gt 702

<210> 68

FP1804 Sequence Listing.TXT

<211> 234

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of h2B1_L3

<400> 68

Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
1 5 10 15

Gly Ala Tyr Gly Asp Thr Val Met Thr Gln Ser Pro Asp Ser Leu Ala
20 25 30

Val Ser Leu Gly Glu Arg Ala Thr Ile Asn Cys Lys Ala Ser Gln Ser
35 40 45

Val Gly Ile Asn Val Asp Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
50 55 60

Lys Leu Leu Ile Tyr Gly Ala Ser Asn Arg His Thr Gly Val Pro Asp
65 70 75 80

Arg Phe Ser Gly Ser Gly Phe Gly Arg Asp Phe Thr Leu Thr Ile Ser
85 90 95

Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Leu Gln His Gly
100 105 110

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

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
130 135 140

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
145 150 155 160

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
165 170 175

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
180 185 190

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
195 200 205

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
210 215 220

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230

FP1804 Sequence Listing.TXT

<210> 69
 <211> 702
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> nucleotide sequence of h2B1_L4

<400> 69
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 atcaactgca aggccagcca gagcgtgggc atcaacgtgg actggtatca gcagaagccc 180
 ggccagagcc ccaagctgct gatctacggc gccagcaaca gacacaccgg cgtgcccgat 240
 agattcagcg gcagcggctt cggcagagac ttcaccctga ccatcagctc cctgcaggcc 300
 gaggatgtgg ccgtgtacta ctgtctgcag cacggcagca tccccccac atttggccag 360
 ggcaccaagg tggaaatcaa gcgtacggtg gccgccccct ccgtgttcat cttccccccc 420
 tccgacgagc agctgaagtc cggcaccgcc tccgtggtgt gcctgctgaa taacttctac 480
 cccagagagg ccaaggtgca gtggaaggtg gacaacgccc tgcagtccgg gaactcccag 540
 gagagcgtga ccgagcagga cagcaaggac agcacctaca gcctgagcag caccctgacc 600
 ctgagcaaag ccgactacga gaagcacaag gtgtacgcct gcgaggtgac ccaccagggc 660
 ctgagctccc ccgtcaccaa gagcttcaac aggggggagt gt 702

<210> 70
 <211> 234
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of h2B1_L4

<400> 70

Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
 1 5 10 15

Gly Ala Tyr Gly Asp Thr Val Met Thr Gln Ser Pro Asp Ser Leu Ala
 20 25 30

Val Ser Leu Gly Glu Arg Ala Thr Ile Asn Cys Lys Ala Ser Gln Ser
 35 40 45

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

Lys Leu Leu Ile Tyr Gly Ala Ser Asn Arg His Thr Gly Val Pro Asp
 65 70 75 80

Arg Phe Ser Gly Ser Gly Phe Gly Arg Asp Phe Thr Leu Thr Ile Ser
 85 90 95

FP1804 Sequence Listing.TXT

Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Leu Gln His Gly
100 105 110

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

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
130 135 140

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
145 150 155 160

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
165 170 175

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
180 185 190

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
195 200 205

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
210 215 220

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230

<210> 71
<211> 702
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of h2B1_L5

<400> 71
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gccaccagaa tgacacagag cccagcagc ttccagcgcca gcaccggcga cagagtgacc 120
atcacatgca aggccagcca gagcgtgggc atcaacgtgg actggtatca gcagaagccc 180
ggcaagagcc ccaagctgct gatctacggc gcctccaaca gacacaccgg cgtgcccagc 240
agattttccg gcagcggctt cggcagagac ttaccctga ccatcagcag cctgcagagc 300
gaggacttcg ccacctacta ctgcctgcag cacggcagca tccccctac atttgcgga 360
ggcaccaagg tggaaatcaa gcgtacggtg gccgccccct ccgtgttcat cttccccccc 420
tccgacgagc agctgaagtc cggcaccgcc tccgtggtgt gcctgctgaa taacttctac 480
cccagagagg ccaaggtgca gtggaagggtg gacaacgccc tgcagtccgg gaactcccag 540
gagagcgtga ccgagcagga cagcaaggac agcacctaca gcctgagcag caccctgacc 600
ctgagcaaag ccgactacga gaagcacaag gtgtacgcct gcgaggtgac ccaccagggc 660

ctgagctccc ccgtcaccaa gagcttcaac aggggggagt gt

<210> 72
 <211> 234
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of h2B1_L5

<400> 72

Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
 1 5 10 15

Gly Ala Tyr Gly Ala Thr Arg Met Thr Gln Ser Pro Ser Ser Phe Ser
 20 25 30

Ala Ser Thr Gly Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Ser
 35 40 45

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

Lys Leu Leu Ile Tyr Gly Ala Ser Asn Arg His Thr Gly Val Pro Ser
 65 70 75 80

Arg Phe Ser Gly Ser Gly Phe Gly Arg Asp Phe Thr Leu Thr Ile Ser
 85 90 95

Ser Leu Gln Ser Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Gly
 100 105 110

Ser Ile Pro Pro Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
 115 120 125

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
 130 135 140

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
 145 150 155 160

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
 165 170 175

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
 180 185 190

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
 195 200 205

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
 210 215 220

FP1804 Sequence Listing.TXT

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230

<210> 73
<211> 1416
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of h2B1_H1

<400> 73
atgaaacacc tgtggttctt cctcctgctg gtggcagctc ccagatgggt gctgagccag 60
gtgcagctgg tggaatctgg cggcggactc gtgaagccta gccagaccct gagcctgacc 120
tgcaccttca gcggtttcag cctgaacacc tacgacatgg gcgtgggctg gatcagacag 180
cctcctggca agggcctgga atggatcggc aacatttggg gggacgacga caagtactac 240
aaccccagcc tgaagtccag agtgaccatc agcgtggaca ccagcaagaa ccaggcctcc 300
ctgaagctga gcagcgtgac agccgccgat accgccgtgt actactgcgc cagaatcgag 360
acagtgcggg tgtccagaaa gggcttcgcc cactggggac agggcacact cgtgaccgtc 420
agctcagcct ccaccaaggg cccaagcgtc ttccccctgg caccctcctc caagagcacc 480
tctggcggca cagccgccct gggctgcctg gtcaaggact acttccccga acccgtgacc 540
gtgagctgga actcaggcgc cctgaccagc ggcgtgcaca ctttccccgc tgtcctgcag 600
tcctcaggac tctactccct cagcagcgtg gtgaccgtgc cctccagcag cttgggcacc 660
cagacctaca tctgcaacgt gaatcacaag cccagcaaca ccaaggtgga caagagagtt 720
gagcccaa at cttgtgacaa aactcacaca tgccaccct gccagcacc tgaactcctg 780
gggggaccct cagtcttcct cttcccccca aaacccaagg acaccctcat gatctcccgg 840
acccttgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagtcc 900
aactggtacg tggacggcgt ggaggtgcat aatgccaaaga caaagccccg ggaggagcag 960
tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat 1020
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc 1080
atctccaaag ccaaaggcca gccccgggaa ccacaggtgt acaccctgcc cccatcccgg 1140
gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc 1200
gacatgccg tggagtggga gagcaatggc cagcccgaga acaactacaa gaccaccctt 1260
cccgtgctgg actccgacgg ctctttcttc ctctacagca agctcaccgt ggacaagagc 1320
aggtggcagc agggcaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac 1380
tacaccaga agagcctctc cctgtctccc ggcaaa 1416

<210> 74
<211> 472
<212> PRT
<213> Artificial Sequence

FP1804 Sequence Listing.TXT

<220>

<223> amino acid sequence of h2B1_H1

<400> 74

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys
20 25 30

Pro Ser Gln Thr Leu Ser Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu
35 40 45

Asn Thr Tyr Asp Met Gly Val Gly Trp Ile Arg Gln Pro Pro Gly Lys
50 55 60

Gly Leu Glu Trp Ile Gly Asn Ile Trp Trp Asp Asp Asp Lys Tyr Tyr
65 70 75 80

Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys
85 90 95

Asn Gln Ala Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Ile Glu Thr Val Arg Val Ser Arg Lys Gly
115 120 125

Phe Ala His Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser
130 135 140

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
145 150 155 160

Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
165 170 175

Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
180 185 190

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
195 200 205

Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
210 215 220

Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val
225 230 235 240

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
245 250 255

FP1804 Sequence Listing.TXT

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
260 265 270

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
275 280 285

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
290 295 300

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
305 310 315 320

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
325 330 335

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
340 345 350

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
355 360 365

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
370 375 380

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

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
405 410 415

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
420 425 430

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
435 440 445

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
450 455 460

Ser Leu Ser Leu Ser Pro Gly Lys
465 470

<210> 75
<211> 1416
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of h2B1_H2

<400> 75
atgaaacacc tgtggttctt cctcctgctg gtggcagctc ccagatgggt gctgagccag

FP1804 Sequence Listing.TXT

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gtgcagctgg tggaaatctgg cggcggactc gtgaagccta gccagaccct gaggctgacc 120
tgcaccttca gcggcttcag cctgaacacc tacgacatgg gcgtgggctg gatcagacag 180
cctcctggca agggcctgga atggatcggc aacatttggg gggacgacga caagtactac 240
aaccccagcc tgaagtccag agtgaccatc agcaaggaca ccagcaacaa ccaggcctcc 300
ctgaagctga gcagcgtgac agccgccgat accgccgtgt actactgcg cagaatcgag 360
acagtgcggg tgtccagaaa gggcttcgcc cactggggac agggcacact cgtgaccgtc 420
agctcagcct ccaccaaggg cccaagcgtc ttccccctgg caccctctc caagagcacc 480
tctggcggca cagccgccct gggctgcctg gtcaaggact acttccccga acccgtgacc 540
gtgagctgga actcaggcgc cctgaccagc ggcgtgcaca ctttccccgc tgtcctgcag 600
tcctcaggac tctactccct cagcagcgtg gtgaccgtgc cctccagcag cttgggcacc 660
cagacctaca tctgcaacgt gaatcacaag cccagcaaca ccaagggtga caagagagtt 720
gagcccaaat cttgtgacaa aactcacaca tgcccaccct gccagcacc tgaactcctg 780
gggggaccct cagtcttcct cttcccccca aaaccaagg acaccctcat gatctcccgg 840
acccctgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagttc 900
aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccccg ggaggagcag 960
tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat 1020
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc 1080
atctccaaag ccaaaggcca gccccgggaa ccacaggtgt acaccctgcc cccatcccgg 1140
gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc 1200
gacatcgccg tggagtggga gagcaatggc cagcccgaga acaactacaa gaccaccctt 1260
cccgtgctgg actccgacgg ctcttcttct ctctacagca agctcaccgt ggacaagagc 1320
aggtggcagc agggcaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac 1380
tacaccaga agagcctctc cctgtctccc ggcaaa 1416

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<210> 76
 <211> 472
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of h2B1_H2

<400> 76

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
 1 5 10 15

Val Leu Ser Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys
 20 25 30

Pro Ser Gln Thr Leu Ser Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu
 35 40 45

FP1804 Sequence Listing.TXT

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Asn Thr Tyr Asp Met Gly Val Gly Trp Ile Arg Gln Pro Pro Gly Lys
 50      55      60

Gly Leu Glu Trp Ile Gly Asn Ile Trp Trp Asp Asp Asp Lys Tyr Tyr
 65      70      75      80

Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Lys Asp Thr Ser Asn
      85      90      95

Asn Gln Ala Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala
      100      105      110

Val Tyr Tyr Cys Ala Arg Ile Glu Thr Val Arg Val Ser Arg Lys Gly
      115      120      125

Phe Ala His Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser
      130      135      140

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
      145      150      155      160

Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
      165      170      175

Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
      180      185      190

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
      195      200      205

Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
      210      215      220

Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val
      225      230      235      240

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
      245      250      255

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
      260      265      270

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
      275      280      285

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
      290      295      300

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
      305      310      315      320

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FP1804 Sequence Listing.TXT

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
325 330 335

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
340 345 350

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
355 360 365

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
370 375 380

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

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
405 410 415

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
420 425 430

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
435 440 445

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
450 455 460

Ser Leu Ser Leu Ser Pro Gly Lys
465 470

<210> 77
<211> 1416
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of h2B1_H3

<400> 77
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gtgcagctgg tggaatctgg cggcggactc gtgaagccta gccagaccct gagcctgacc 120
tgcaccttca gcggcttcag cctgaacacc tacgacatgg gcgtgggctg gatcagacag 180
cctcctggca agggcctgga atggatcgcc aacatttggg gggacgacga caagtactac 240
aaccacagcc tgaagtccag agtgaccatc agcaaggaca ccagcaacaa ccaggcctcc 300
ctgaagctga gcagcgtgac agccgccgat accgccgtgt actactgcgc cagaatcgag 360
acagtgcggg tgtccagaaa gggcttcgcc cactggggac agggcacact cgtgaccgtc 420
agctcagcct ccaccaaggg cccaagcgtc ttccccctgg caccctctc caagagcacc 480
tctggcggca cagccgccct gggctgcctg gtcaaggact acttccccga acccgtgacc 540

FP1804 Sequence Listing.TXT

gtgagctgga actcagggcg cctgaccagc ggcgtgcaca ccttccccgc tgtcctgcag	600
tcctcaggac tctactccct cagcagcgtg gtgaccgtgc cctccagcag cttgggcacc	660
cagacctaca tctgcaacgt gaatcacaag cccagcaaca ccaaggtgga caagagagtt	720
gagcccaaat cttgtgacaa aactcacaca tgcccaccct gcccagcacc tgaactcctg	780
gggggaccct cagtcttcct cttcccccca aaacccaagg acaccctcat gatctcccgg	840
acccttgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagttc	900
aactggtacg tggacggcgt ggaggtgcat aatgccaaaga caaagccccg ggaggagcag	960
tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat	1020
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc	1080
atctccaaag ccaaaggcca gccccgggaa ccacaggtgt acaccctgcc cccatccccg	1140
gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc	1200
gacatcgccg tggagtggga gagcaatggc cagcccagaga acaactacaa gaccaccctt	1260
cccgtgctgg actccgacgg ctctttcttc ctctacagca agctcaccgt ggacaagagc	1320
aggtggcagc agggcaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac	1380
tacaccaga agagcctctc cctgtctccc ggcaaa	1416

<210> 78
 <211> 472
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of h2B1_H3

<400> 78

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

FP1804 Sequence Listing.TXT

Val Tyr Tyr Cys Ala Arg Ile Glu Thr Val Arg Val Ser Arg Lys Gly
 115 120 125

 Phe Ala His Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser
 130 135 140

 Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
 145 150 155 160

 Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
 165 170 175

 Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
 180 185 190

 His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
 195 200 205

 Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
 210 215 220

 Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val
 225 230 235 240

 Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
 245 250 255

 Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
 260 265 270

 Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
 275 280 285

 Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
 290 295 300

 Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
 305 310 315 320

 Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
 325 330 335

 Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
 340 345 350

 Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
 355 360 365

 Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
 370 375 380

FP1804 Sequence Listing.TXT

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

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
405 410 415

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
420 425 430

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
435 440 445

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
450 455 460

Ser Leu Ser Leu Ser Pro Gly Lys
465 470

<210> 79
<211> 1416
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of h2B1_H4

<400> 79
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gtgaccctga aagagtccgg ccctgccctc gtgaagccta cccagaccct gacactgacc 120
tgcaccttca gcggcttcag cctgaacacc tacgacatgg gcgtgggctg gatcagacag 180
cctcctggca agggcctgga atggctggcc aacatttggt gggacgacga caagtactac 240
agccccagcc tgaagtcccg gctgaccatc accaaggaca ccagcaacaa ccaggccgtg 300
ctgaccatga caaacatgga ccccgtagac accgccacct actactgcgc cagaatcgag 360
acagtgcggg tgtccagaaa gggcttcgcc cactggggac agggcacact cgtgaccgtc 420
agctcagcct ccaccaaggg cccaagcgtc ttccccctgg caccctcctc caagagcacc 480
tctggcgcca cagccgccct gggctgcctg gtcaaggact acttccccga acccgtgacc 540
gtgagctgga actcaggcgc cctgaccagc ggcgtgcaca ccttccccgc tgtcctgcag 600
tcctcaggac tctactccct cagcagcgtg gtgaccgtgc cctccagcag cttgggcacc 660
cagacctaca tctgcaacgt gaatcacaag cccagcaaca ccaagggtgga caagagagtt 720
gagcccaaat cttgtgacaa aactcacaca tgcccaccct gcccagcacc tgaactcctg 780
gggggaccct cagtcttcct ctcccccca aaaccaagg acaccctcat gatctcccgg 840
acccttgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagttc 900
aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccccg ggaggagcag 960
tacaacagca cgtaccgggt ggtcagcgtc ctaccgtcc tgcaccagga ctggctgaat 1020

FP1804 Sequence Listing.TXT

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ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc 1080
atctccaaag ccaaaggcca gccccgggaa ccacaggtgt acaccctgcc cccatcccgg 1140
gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc 1200
gacatcgccg tggagtggga gagcaatggc cagcccgaga acaactacaa gaccaccctt 1260
cccgtgctgg actccgacgg ctctttcttc ctctacagca agctcaccgt ggacaagagc 1320
aggtggcagc agggcaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac 1380
tacaccaga agagcctctc cctgtctccc ggcaaa 1416

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<210> 80

<211> 472

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of h2B1_H4

<400> 80

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

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

Pro Thr Gln Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu
35 40 45

Asn Thr Tyr Asp Met Gly Val Gly Trp Ile Arg Gln Pro Pro Gly Lys
50 55 60

Gly Leu Glu Trp Leu Ala Asn Ile Trp Trp Asp Asp Asp Lys Tyr Tyr
65 70 75 80

Ser Pro Ser Leu Lys Ser Arg Leu Thr Ile Thr Lys Asp Thr Ser Asn
85 90 95

Asn Gln Ala Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala
100 105 110

Thr Tyr Tyr Cys Ala Arg Ile Glu Thr Val Arg Val Ser Arg Lys Gly
115 120 125

Phe Ala His Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser
130 135 140

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
145 150 155 160

Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
165 170 175

FP1804 Sequence Listing.TXT

Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
180 185 190

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
195 200 205

Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
210 215 220

Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val
225 230 235 240

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
245 250 255

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
260 265 270

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
275 280 285

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
290 295 300

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
305 310 315 320

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
325 330 335

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
340 345 350

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
355 360 365

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
370 375 380

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

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
405 410 415

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
420 425 430

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
435 440 445

FP1804 Sequence Listing.TXT

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
450 455 460

Ser Leu Ser Leu Ser Pro Gly Lys
465 470

<210> 81
<211> 699
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of h7B4_L1

<400> 81
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gagatcgtgc tgacacagag ccctggcacc ctgagcctgt ctccaggcga aagagccacc 120
ctgtcctgca aggccagcca gaacatcaac aagtacctgg actggtatca gcagaagccc 180
ggccagcccc ccagactgct gatctacaac accaacaacc tgcacaccgg catccccgac 240
agattcagcg gctctggcag cggcaccgac tacaccctga ccatcagcag actggaaccc 300
gaggacttcg ccgtgtacta ctgcctgcag cggaacagct ggtacacctt cggccagggc 360
accaaggtgg aaatcaagcg tacggtggcc gccccctccg tgttcatctt cccccctcc 420
gacgagcagc tgaagtccgg caccgcctcc gtggtgtgccc tgctgaataa cttctacccc 480
agagaggcca aggtgcagtg gaaggtggac aacgccctgc agtccgggaa ctcccaggag 540
agcgtgaccg agcaggacag caaggacagc acctacagcc tgagcagcac cctgaccctg 600
agcaaagccg actacgagaa gcacaaggtg tacgcctgcg aggtgacca ccagggcctg 660
agctcccccg tcaccaagag cttcaacagg ggggagtgt 699

<210> 82
<211> 233
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of h7B4_L1

<400> 82

Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
1 5 10 15

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

Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Lys Ala Ser Gln Asn
35 40 45

Ile Asn Lys Tyr Leu Asp Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
50 55 60

FP1804 Sequence Listing.TXT

Arg Leu Leu Ile Tyr Asn Thr Asn Asn Leu His Thr Gly Ile Pro Asp
65 70 75 80

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser
85 90 95

Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Leu Gln Arg Asn
100 105 110

Ser Trp Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr
115 120 125

Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu
130 135 140

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

Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly
165 170 175

Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr
180 185 190

Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His
195 200 205

Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val
210 215 220

Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230

<210> 83
<211> 699
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of h7B4_L2

<400> 83
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gacatccaga tgaccagag ccctagcagc ctgagcctgt cccctggcga aagagccacc 120
ctgagctgca aggccagcca gaacatcaac aagtacctgg actggtatca gcagaagccc 180
ggccagcccc ccagactgct gatctacaac accaacaacc tgcacaccgg catccccgac 240
agattcagcg gctctggcag cggcaccgac tacaccctga ccatcagcag actggaaccc 300
gaggacttcg ccgtgtacta ctgcctgcag cggaacagct ggtacacctt cggccagggc 360
accaaggtgg aaatcaagcg tacggtggcc gccccctccg tggtcatctt cccccctcc 420

FP1804 Sequence Listing.TXT

gacgagcagc tgaagtccgg caccgcctcc gtggtgtgcc tgctgaataa cttctacccc 480
agagaggcca aggtgcagtg gaaggtggac aacgccctgc agtccgggaa ctcccaggag 540
agcgtgaccg agcaggacag caaggacagc acctacagcc tgagcagcac cctgaccctg 600
agcaaagccg actacgagaa gcacaaggtg tacgcctgcg aggtgaccca ccagggcctg 660
agctcccccg tcaccaagag cttcaacagg ggggagtg 699

<210> 84
<211> 233
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of h7B4_L2

<400> 84

Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
1 5 10 15

Gly Ala Tyr Gly Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser
20 25 30

Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Lys Ala Ser Gln Asn
35 40 45

Ile Asn Lys Tyr Leu Asp Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
50 55 60

Arg Leu Leu Ile Tyr Asn Thr Asn Asn Leu His Thr Gly Ile Pro Asp
65 70 75 80

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser
85 90 95

Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Leu Gln Arg Asn
100 105 110

Ser Trp Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr
115 120 125

Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu
130 135 140

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

Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly
165 170 175

Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr
180 185 190

FP1804 Sequence Listing.TXT

Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His
195 200 205

Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val
210 215 220

Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230

<210> 85
<211> 1416
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of h7B4_H1

<400> 85
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tgtaccgtgt ccggctacac catcaccagc ggctacgact ggtcctggat cagacagcct 180
cctggcaagg gcctggaatg gatcgctac atgagctacc ggggcagcac caactacaac 240
cccagcctga agtccagagt gaccatcagc cgggacacca gcaagaacca gttctccctg 300
aagctgagca gcgtgacagc cgccgatacc gccgtgtact actgcgccct gacccggacc 360
tactggtaca actactacta cgtgctggac gcctggggcc agggcacact cgtgaccgtc 420
agctcagcct ccaccaaggg cccaagcgtc ttccccctgg caccctcctc caagagcacc 480
tctggcggca cagccgccct gggctgcctg gtcaaggact acttccccga acccgtgacc 540
gtgagctgga actcaggcgc cctgaccagc ggcgtgcaca ccttccccgc tgtcctgcag 600
tcctcaggac tctactcct cagcagcgtg gtgaccgtgc cctccagcag cttgggcacc 660
cagacctaca tctgcaacgt gaatcacaag ccagcaaca ccaaggtgga caagagagtt 720
gagcccaaat cttgtgacaa aactcacaca tgcccaccct gcccagcacc tgaactcctg 780
gggggaccct cagtcttctt cttccccca aaacccaagg acaccctcat gatctcccgg 840
acccttgagg tcacatgctg ggtggtggac gtgagccacg aagaccctga ggtcaagtct 900
aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccccg ggaggagcag 960
tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat 1020
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc 1080
atctccaaag ccaaaggcca gccccgggaa ccacaggtgt acaccctgcc cccatcccgg 1140
gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc 1200
gacatcgccg tggagtggga gagcaatggc cagcccagaga acaactacaa gaccaccctt 1260
cccgtgctgg actccgacgg ctcttcttct ctctacagca agctcaccgt ggacaagagc 1320
aggtggcagc agggcaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac 1380

tacacccaga agagcctctc cctgtctccc ggcaaa

<210> 86
 <211> 472
 <212> PRT
 <213> Artificial sequence

<220>
 <223> amino acid sequence of h7B4_H1

<400> 86

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
 1 5 10 15

Val Leu Ser Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys
 20 25 30

Pro Ser Gln Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Thr Ile
 35 40 45

Thr Ser Gly Tyr Asp Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly
 50 55 60

Leu Glu Trp Ile Ala Tyr Met Ser Tyr Arg Gly Ser Thr Asn Tyr Asn
 65 70 75 80

Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn
 85 90 95

Gln Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val
 100 105 110

Tyr Tyr Cys Ala Leu Thr Arg Thr Tyr Trp Tyr Asn Tyr Tyr Tyr Val
 115 120 125

Leu Asp Ala Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser
 130 135 140

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
 145 150 155 160

Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
 165 170 175

Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
 180 185 190

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
 195 200 205

Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
 210 215 220

FP1804 Sequence Listing.TXT

Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val
 225 230 235 240
 Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
 245 250 255
 Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
 260 265 270
 Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
 275 280 285
 Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
 290 295 300
 Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
 305 310 315 320
 Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
 325 330 335
 Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
 340 345 350
 Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
 355 360 365
 Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
 370 375 380
 Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
 385 390 395 400
 Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
 405 410 415
 Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
 420 425 430
 Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
 435 440 445
 Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
 450 455 460
 Ser Leu Ser Leu Ser Pro Gly Lys
 465 470

<210> 87
 <211> 1416
 <212> DNA

FP1804 Sequence Listing.TXT

<213> Artificial Sequence

<220>

<223> nucleotide sequence of h7B4_H2

<400> 87

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atccagctgc aggaatctgg ccctggcctc gtgaagccta gccagaccct gagcctgacc	120
tgtaccgtgt ccggctacac catcaccagc ggctacgact ggtcctggat cagacagcct	180
cctggcaagg gcctggaatg gatcggctac atgagctacc ggggcagcac caactacaac	240
cccagcctga agtccagagt gaccatcagc cgggacacca gcaagaacca gttctccctg	300
aagctgagca gcgtgacagc cgccgatacc gccgtgtact actgcgccct gacccggacc	360
tactggtaca actactacta cgtgctggac gcctggggcc agggcacact cgtgaccgtc	420
agctcagcct ccaccaaggg cccaagcgtc ttccccctgg caccctcctc caagagcacc	480
tctggcggca cagccgcctt gggctgcctg gtcaaggact acttccccga acccgtgacc	540
gtgagctgga actcaggcgc cctgaccagc ggcgtgcaca ctttccccgc tgtcctgcag	600
tcctcaggac tctactccct cagcagcgtg gtgaccgtgc cctccagcag cttgggcacc	660
cagacctaca tctgcaacgt gaatcacaag ccagcaaca ccaaggtgga caagagagtt	720
gagcccaaat cttgtgacaa aactcacaca tgcccaccct gcccagcacc tgaactcctg	780
gggggaccct cagtcttcct cttcccccca aaaccaagg acaccctcat gatctcccgg	840
acccctgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagttc	900
aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccccg ggaggagcag	960
tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat	1020
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc	1080
atctccaaag ccaaaggcca gccccgggaa ccacaggtgt acaccctgcc cccatcccgg	1140
gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc	1200
gacatcgccg tggagtggga gagcaatggc cagccccgaga acaactacaa gaccaccctt	1260
cccgtgctgg actccgacgg ctcttcttct ctctacagca agctcaccgt ggacaagagc	1320
aggtggcagc agggcaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac	1380
tacaccaga agagcctctc cctgtctccc ggcaaa	1416

<210> 88

<211> 472

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of h7B4_H2

<400> 88

Met	Lys	His	Leu	Trp	Phe	Phe	Leu	Leu	Leu	Val	Ala	Ala	Pro	Arg	Trp
1				5					10					15	

FP1804 Sequence Listing.TXT

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

FP1804 Sequence Listing.TXT

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
290 295 300

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
305 310 315 320

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
325 330 335

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
340 345 350

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
355 360 365

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
370 375 380

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

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
405 410 415

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
420 425 430

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
435 440 445

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
450 455 460

Ser Leu Ser Leu Ser Pro Gly Lys
465 470

<210> 89
<211> 1416
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of h7B4_H3

<400> 89	
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atccagctgc aggaatctgg ccctggcctc gtgaagccta gccagaccct gaggctgacc	120
tgtaccgtgt ccggctacac catcaccagc ggctacgact ggtcctggat cagacagcct	180
cctggcaagg gcctggaatg gatcgcttac atgagctacc ggggcagcac caactacaac	240
cccagcctga agtcagagt gaccatcagc cgggacacca gcaagaacca gttctcctg	300

FP1804 Sequence Listing.TXT

aagctgagca gcgtagacagc cgccgataacc gccgtgtact actgcgccct gacccggacc	360
tactggtaca actactacta cgtgctggac gcctggggcc agggcacact cgtgaccgtc	420
agctcagcct ccaccaaggg cccaagcgtc ttccccctgg caccctcctc caagagcacc	480
tctggcggca cagccgccct gggctgcctg gtcaaggact acttccccga acccgtgacc	540
gtgagctgga actcaggcgc cctgaccagc ggcgtagaca ccttccccgc tgcctgcag	600
tcctcaggac tctactcct cagcagcgtag gtgaccgtgc cctccagcag cttgggcacc	660
cagacctaca tctgcaacgt gaatcacaaag cccagcaaca ccaaggtgga caagagagtt	720
gagcccaaatt cttgtgacaa aactcacaca tgccccacct gccagcacc tgaactcctg	780
gggggaccct cagtcttctt cttcccccca aaacccaagg acaccctcat gatctcccgg	840
acccttgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagttc	900
aactggtacg tggacggcgt ggaggtgcat aatgccaaaga caaagccccg ggaggagcag	960
tacaacagca cgtaccgggt ggtcagcgtc ctaccgtcc tgcaccagga ctggctgaat	1020
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc	1080
atctccaaag ccaaaggcca gccccgggaa ccacaggtgt acaccctgcc cccatcccgg	1140
gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc	1200
gacatcgccg tggagtggga gagcaatggc cagcccagaga acaactacaa gaccaccct	1260
cccgtgctgg actccgacgg ctctttcttc ctctacagca agctcaccgt ggacaagagc	1320
aggtggcagc agggcaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac	1380
tacaccaga agagcctctc cctgtctccc ggcaaa	1416

<210> 90
 <211> 472
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of h7B4_H3

<400> 90

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

FP1804 Sequence Listing.TXT

Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn
85 90 95

Gln Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Leu Thr Arg Thr Tyr Trp Tyr Asn Tyr Tyr Tyr Val
115 120 125

Leu Asp Ala Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser
130 135 140

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
145 150 155 160

Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
165 170 175

Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
180 185 190

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
195 200 205

Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
210 215 220

Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val
225 230 235 240

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
245 250 255

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
260 265 270

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
275 280 285

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
290 295 300

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
305 310 315 320

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
325 330 335

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
340 345 350

FP1804 Sequence Listing.TXT

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
355 360 365

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
370 375 380

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

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
405 410 415

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
420 425 430

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
435 440 445

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
450 455 460

Ser Leu Ser Leu Ser Pro Gly Lys
465 470

<210> 91
<211> 1416
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of h7B4_H5

<400> 91
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atccagctgc aggaatctgg ccctggcctc gtgaagccta gccagaccct gagcctgacc 120
tgtaccgtgt ccggctacac catcaccagc ggctacgact ggtcctggat cagaaagccc 180
cctggcaaca agatggaatg gatcgcttac atgagctacc ggggcagcac caactacaac 240
cccagcctga agtcagagt gaccatcagc cgggacacca gcaagaacca gttctccctg 300
aagctgagca gcgtgacagc cgccgatacc gccgtgtact actgcgccct gaccgggacc 360
tactggtaca actactacta cgtgctggac gcctggggcc agggcacact cgtgaccgtc 420
agctcagcct ccaccaaggg cccaagcgtc ttccccctgg caccctcctc caagagcacc 480
tctggcggca cagccgccct gggctgcctg gtcaaggact acttccccga acccgtgacc 540
gtgagctgga actcaggcgc cctgaccagc ggcgtgcaca cttccccgc tgcctgcag 600
tcctcaggac tctactcct cagcagcgtg gtgaccgtgc cctccagcag cttgggcacc 660
cagacctaca tctgcaacgt gaatcacaag cccagcaaca ccaaggtgga caagagagtt 720
gagcccaaat cttgtgacaa aactcacaca tgcccaccct gcccagcacc tgaactcctg 780

FP1804 Sequence Listing.TXT

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ggggggaccct cagtcttcct cttcccccca aaaccaagg acaccctcat gatctcccgg      840
acccctgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagttc      900
aactgggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccccg ggaggagcag      960
tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat     1020
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc     1080
atctccaaag ccaaaggcca gccccgggaa ccacaggtgt acaccctgcc cccatcccgg     1140
gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc     1200
gacatcgccg tggagtggga gagcaatggc cagcccgaga acaactacaa gaccaccctt     1260
cccgtgctgg actccgacgg ctcttcttct ctctacagca agctcaccgt ggacaagagc     1320
aggtggcagc agggcaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac     1380
tacaccagga agagcctctc cctgtctccc ggcaaa                                1416

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<210> 92
 <211> 472
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of h7B4_H5

<400> 92

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
 1 5 10 15

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

Pro Ser Gln Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Thr Ile
 35 40 45

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

Met Glu Trp Ile Ala Tyr Met Ser Tyr Arg Gly Ser Thr Asn Tyr Asn
 65 70 75 80

Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Arg Asp Thr Ser Lys Asn
 85 90 95

Gln Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val
 100 105 110

Tyr Tyr Cys Ala Leu Thr Arg Thr Tyr Trp Tyr Asn Tyr Tyr Tyr Val
 115 120 125

Leu Asp Ala Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser
 130 135 140

FP1804 Sequence Listing.TXT

Thr 145	Lys	Gly	Pro	Ser	Val 150	Phe	Pro	Leu	Ala	Pro 155	Ser	Ser	Lys	Ser	Thr 160
Ser	Gly	Gly	Thr	Ala 165	Ala	Leu	Gly	Cys	Leu 170	Val	Lys	Asp	Tyr	Phe 175	Pro
Glu	Pro	Val	Thr 180	Val	Ser	Trp	Asn	Ser 185	Gly	Ala	Leu	Thr	Ser 190	Gly	Val
His	Thr	Phe 195	Pro	Ala	Val	Leu	Gln 200	Ser	Ser	Gly	Leu	Tyr 205	Ser	Leu	Ser
Ser	Val 210	Val	Thr	Val	Pro	Ser 215	Ser	Ser	Leu	Gly	Thr 220	Gln	Thr	Tyr	Ile
Cys 225	Asn	Val	Asn	His	Lys 230	Pro	Ser	Asn	Thr	Lys 235	Val	Asp	Lys	Arg	Val 240
Glu	Pro	Lys	Ser	Cys 245	Asp	Lys	Thr	His	Thr 250	Cys	Pro	Pro	Cys	Pro 255	Ala
Pro	Glu	Leu	Leu 260	Gly	Gly	Pro	Ser	Val 265	Phe	Leu	Phe	Pro	Pro 270	Lys	Pro
Lys	Asp	Thr 275	Leu	Met	Ile	Ser	Arg 280	Thr	Pro	Glu	Val	Thr 285	Cys	Val	Val
Val	Asp 290	Val	Ser	His	Glu	Asp 295	Pro	Glu	Val	Lys	Phe 300	Asn	Trp	Tyr	Val
Asp 305	Gly	Val	Glu	Val	His 310	Asn	Ala	Lys	Thr	Lys 315	Pro	Arg	Glu	Glu	Gln 320
Tyr	Asn	Ser	Thr	Tyr 325	Arg	Val	Val	Ser	Val 330	Leu	Thr	Val	Leu	His 335	Gln
Asp	Trp	Leu	Asn 340	Gly	Lys	Glu	Tyr	Lys 345	Cys	Lys	Val	Ser	Asn 350	Lys	Ala
Leu	Pro	Ala 355	Pro	Ile	Glu	Lys	Thr 360	Ile	Ser	Lys	Ala	Lys 365	Gly	Gln	Pro
Arg	Glu 370	Pro	Gln	Val	Tyr	Thr 375	Leu	Pro	Pro	Ser	Arg 380	Glu	Glu	Met	Thr
Lys 385	Asn	Gln	Val	Ser	Leu 390	Thr	Cys	Leu	Val	Lys 395	Gly	Phe	Tyr	Pro	Ser 400
Asp	Ile	Ala	Val	Glu 405	Trp	Glu	Ser	Asn	Gly 410	Gln	Pro	Glu	Asn	Asn 415	Tyr

FP1804 Sequence Listing.TXT

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
420 425 430

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
435 440 445

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
450 455 460

Ser Leu Ser Leu Ser Pro Gly Lys
465 470

<210> 93
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> polypeptide encoding N-terminal sequence of cynomologous GPRC5D

<220>
<221> misc_feature
<222> (28)..(28)
<223> 28 X is biotinylated Lysine

<400> 93

Met Tyr Lys Asp Cys Ile Glu Ser Thr Gly Asp Tyr Phe Leu Pro Cys
1 5 10 15

Asp Ser Glu Gly Pro Trp Gly Ile Val Leu Glu Xaa
20 25

<210> 94
<211> 26
<212> DNA
<213> Artificial Sequence

<220>
<223> primer A used for sequence analysis of scFv

<400> 94
ctcttcgcta ttacgccagc tggcga 26

<210> 95
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> primer B used for sequence analysis of scFv

<400> 95
ataacaattt cacacaggaa acagctatga 30

<210> 96
<211> 345
<212> DNA

FP1804 Sequence Listing.TXT

<213> Artificial Sequence

<220>

<223> nucleotide sequence of C2037 VH

<400> 96

caggtgcagc	tggtgcagtc	tggggctgag	gtgaagaagc	ctggggcctc	agtgaaggtc	60
tcctgcaagg	cttctggata	caccttcacc	ggctactata	tgactgggt	gcgacaggcc	120
cctggacaag	ggcttgagt	gatgggacgg	atcaacccta	acagtgggtg	cacaaactat	180
gcacagaagt	ttcagggcag	ggtcaccatg	accagggaca	cgtccatcag	cacagcctac	240
atggagctga	gcaggctgag	atctgacgac	acggccgtgt	attactgtgc	gagtgggaag	300
agtaactacc	cctggggcca	gggaaccctg	gtcaccgtct	cctca		345

<210> 97

<211> 115

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of C2037 VH

<400> 97

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

<210> 98

<211> 330

<212> DNA

<213> Artificial Sequence

<220>

<223> nucleotide sequence of C2037 VL

FP1804 Sequence Listing.TXT

<400> 98
cagcctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60
tcttgttctg gaagcaactc caacatcggc agtagaactg tgaattggta ccagcacctc 120
ccaggaacgg cccccagact cctcatctat ggtaataatc agtggccctc aggggtccct 180
gaccgattct ctggctctaa gtctggctcc tcagcctccc tggccatcag tgggctccgg 240
tccgaggatg aggctgatta ttactgtgca gcatgggatg acagcctgag tgggtgtggta 300
ttcggcggag ggaccaagct gaccgtccta 330

<210> 99
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of C2037 VL

<400> 99
Gln Pro Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15
Arg Val Thr Ile Ser Cys Ser Gly Ser Asn Ser Asn Ile Gly Ser Arg
20 25 30
Thr Val Asn Trp Tyr Gln His Leu Pro Gly Thr Ala Pro Arg Leu Leu
35 40 45
Ile Tyr Gly Asn Asn Gln Trp Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60
Gly Ser Lys Ser Gly Ser Ser Ala Ser Leu Ala Ile Ser Gly Leu Arg
65 70 75 80
Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp Ser Leu
85 90 95
Ser Gly Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 100
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of C3048 VH

<400> 100
caggtgcagc tggtgcagtc tggggctgag gtgaagaagc ctgggtcctc ggtgaaggtc 60
tcctgcaagg cttctggagg caccttcagc aggtatgcta tcagctgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggaggg atcatcccta tctttggaac agcaaactac 180

FP1804 Sequence Listing.TXT

gcacagaagt tccagggcag agtcacaatt accgcgacc aatccacgag aacagcctac 240
atggacctgg gcagactgag atctgaggac acggccgtgt attattgtgc tctcgaggga 300
ttcagggact cattaaaacg aaatcctttt gatatctggg gccaaaggac aatggtcacc 360
gtctcttca 369

<210> 101
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of C3048 VH

<400> 101

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Arg Tyr
20 25 30

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

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

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

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

Ala Leu Glu Gly Phe Arg Asp Ser Leu Lys Arg Asn Pro Phe Asp Ile
100 105 110

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

<210> 102
<211> 330
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of C3048 VL

<400> 102

cagtctgtcg tgacgcagcc gccctcagtg tctgcggccc caggacagaa ggtcaccatc 60
tcctgctctg gaggcaccac caacattggg agtaattatg tatcctggta tcagcagctc 120
ccaggaacag ccccaaatt cctcatgtat gaaaataata agcgaccctc aggcattcct 180
gaccgattct ctggctccaa gtctggcacg tcagccaccc tggccatcac cggactccag 240

FP1804 Sequence Listing.TXT

actggggacg aggccactta ttactgtctca acatgggata gcagcctgaa tactggggcta 300
ttcggcggag ggaccaagct gaccgtccta 330

<210> 103
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of C3048 VL

<400> 103

Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
1 5 10 15

Lys Val Thr Ile Ser Cys Ser Gly Gly Thr Thr Asn Ile Gly Ser Asn
20 25 30

Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Phe Leu
35 40 45

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

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Ala Ile Thr Gly Leu Gln
65 70 75 80

Thr Gly Asp Glu Ala Thr Tyr Tyr Cys Ser Thr Trp Asp Ser Ser Leu
85 90 95

Asn Thr Gly Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 104
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of C3015 VH

<400> 104

gaggtgcagc tggtggagtc cgggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggatt cacctttagg aactatgcca tgagctgggt ccgccaggct 120
ccaggggaagg ggctggagtg ggtctcaggt attagtggta ctggtggtag cacatactac 180
gcagactccg tgaagggccg gttcaccatc tccagagaca attccaagga cacactatat 240
ctgcaattga acagcctgag agccgaggac acggccgtat attactgtgc gaaatcccgt 300
agtatgagta tcaactacgg tatggacgtc tggggccaag ggaccacggt caccgtctcc 360
tca 363

<210> 105

FP1804 Sequence Listing.TXT

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

<220>
<223> amino acid sequence of C3015 VH

<400> 105

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

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

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

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

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

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

Ala Lys Ser Arg Ser Met Ser Ile Asn Tyr Gly Met Asp Val Trp Gly
100 105 110

Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 106
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of C3015 VL

<400> 106

tcctatgagc tgactcagcc accctcagtg tccgtgtccc caggacagac agtcagcatc	60
acctgctctg gagataattt gggatgata tatgcctcct ggtatcagca gaagccaggc	120
cagtcccctg tgcaggtcat ctatcaagat accaagcggc cctcagggat ccctgagcga	180
ttctctggct ccaactctgg gaacacagcc actctgacca tcagcgggac ccaggctatg	240
gatgaggctg actattactg tcaggcgtgg gacagcaaca ctgtggtatt cggcggaggg	300
accaagctga ccgtccta	318

<210> 107
<211> 106
<212> PRT
<213> Artificial Sequence

FP1804 Sequence Listing.TXT

<220>

<223> amino acid sequence of C3015 VL

<400> 107

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

Thr Val Ser Ile Thr Cys Ser Gly Asp Asn Leu Gly Asp Arg Tyr Ala
20 25 30

Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Val Gln Val Ile Tyr
35 40 45

Gln Asp Thr Lys Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
50 55 60

Asn Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Gly Thr Gln Ala Met
65 70 75 80

Asp Glu Ala Asp Tyr Tyr Cys Gln Ala Trp Asp Ser Asn Thr Val Val
85 90 95

Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105

<210> 108

<211> 345

<212> DNA

<213> Artificial Sequence

<220>

<223> nucleotide sequence of C3022 VH

<400> 108

caggtgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60

tcctgcaagg cttctggata caccttcacc ggctactata tgcactgggt gcgacaggcc 120

cctggacaag ggcttgagt gatgggacgg atcaacccta acagtgggtg cacaaactat 180

gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac 240

atggagctga gcgggctgag atctgacgac acggccgttt attactgtgc gagtggtagt 300

gtaaggcatc cctggggcca gggaaccctg gtcaccgtct cctca 345

<210> 109

<211> 115

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of C3022 VH

<400> 109

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

FP1804 Sequence Listing.TXT

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

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

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

Met Glu Leu Ser Gly Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
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Ala Ser Gly Ser Val Arg His Pro Trp Gly Gln Gly Thr Leu Val Thr
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Val Ser Ser
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ccaggaacgg cccccagact cctcacttat gctgataatc agcggccctc aggggtccct	180
gaccgattct ctggctccaa gtctggcacc tcagcctccc tggccatcag tggcctccag	240
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<400> 111

Gly Tyr Thr Phe Thr Gly Tyr Tyr
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<210> 114

<211> 8

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<210> 115

<211> 3

<212> PRT

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<220>

<223> amino acid sequence of C2037 L CDR2

<400> 115

Gly Asn Asn
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<210> 116

<211> 11

<212> PRT

<213> Artificial Sequence

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<223> amino acid sequence of C2037 L CDR3

<400> 116

Ala Ala Trp Asp Asp Ser Leu Ser Gly Val Val
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<210> 117

FP1804 Sequence Listing.TXT

<211> 8
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Gly Gly Thr Phe Ser Arg Tyr Ala
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<210> 118
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 <400> 118

Ile Ile Pro Ile Phe Gly Thr Ala
 1 5

<210> 119
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Thr Thr Asn Ile Gly Ser Asn Tyr
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Glu Asn Asn
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FP1804 Sequence Listing.TXT

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<210> 126
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<400> 127
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<210> 128
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<220>
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1              5

<210> 129
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<212> PRT
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<220>
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<400> 129
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<210> 130
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<400> 130
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<210> 131
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<223> amino acid sequence of C3022 H CDR3

<400> 131

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FP1804 Sequence Listing.TXT

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Arg Ser Asn Ile Gly Gly Asn Ile
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Ala Asp Asn
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<210> 134
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of C3022 L CDR3
<400> 134

Ala Ala Trp Asp Asp Ser Leu Asn Gly Val Val
1 5 10

<210> 135
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of C3022 VL
<400> 135

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

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

Ile Val Ser Trp Tyr Gln Gln Phe Pro Gly Thr Ala Pro Arg Leu Leu
35 40 45

FP1804 Sequence Listing.TXT

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

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
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Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp Ser Leu
85 90 95

Asn Gly Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 136
<211> 1392
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of C2037 H in IgG form

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tgcaaggctt ctggatacac cttcaccggc tactatatgc actgggtgcg acaggccccct 180
ggacaagggc ttgagtggat gggacggatc aaccctaaca gtggtggcac aaactatgca 240
cagaagtttc agggcagggg caccatgacc agggacacgt ccatcagcac agcctacatg 300
gagctgagca ggctgagatc tgacgacacg gccgtgtatt actgtgctgag tgggaagagt 360
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cgggaaccac aggtgtacac cctgccccca tcccgggagg agatgaccaa gaaccagggtc 1140
agcctgacct gcctggtcaa aggtttctat ccagcgcaca tcgccgtgga gtgggagagc 1200
aatggccagc ccgagaacaa ctacaagacc acccctcccg tgctggactc cgacggctcc 1260

FP1804 Sequence Listing.TXT

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tctcccgga aa	1392

<210> 137
 <211> 708
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> nucleotide sequence of C2037 L in IgG form

<400> 137	
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tcttgttctg gaagcaactc caacatcggc agtagaactg tgaattggta ccagcacctc	180
ccaggaacgg cccccagact cctcatctat ggtaataatc agtggccctc aggggtccct	240
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tccgaggatg aggctgatta ttactgtgca gcatgggatg acagcctgag tgggtgtgta	360
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 <211> 1416
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 <213> Artificial Sequence

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tgcaaggctt ctggaggcac cttcagcagg tatgctatca gctgggtgcg acaggccctt	180
ggacaagggc ttgagtggat gggagggatc atccctatct ttggaacagc aaactacgca	240
cagaagtcc agggcagagt cacaattacc gcggaccaat ccacgagaac agcctacatg	300
gacctgggca gactgagatc tgaggacacg gccgtgtatt attgtgctct cgagggattc	360
agggactcat taaaacgaaa tccttttgat atctggggcc aagggacaat ggtcaccgtc	420
agctcagcct ccaccaaggg cccaagcgtc ttccccctgg caccctctc caagagcacc	480
tctggcggca cagccgccct gggctgcctg gtcaaggact acttccccga acccgtgacc	540

FP1804 Sequence Listing.TXT

gtgagctgga actcaggcgc cctgaccagc ggcgtgcaca ccttccccgc tgtcctgcag	600
tcctcaggac tctactccct cagcagcgtg gtgaccgtgc cctccagcag cttgggcacc	660
cagacctaca tctgcaacgt gaatcacaag cccagcaaca ccaaggtgga caagagagtt	720
gagcccaaatt cttgtgacaa aactcacaca tgccccaccct gccagcacc tgaactcctg	780
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tacaacagca cgtaccgggt ggtcagcgtc ctaccgtcc tgcaccagga ctggctgaat	1020
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atctccaaag ccaaaggcca gccccgggaa ccacaggtgt acaccctgcc cccatcccgg	1140
gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc	1200
gacatcgccg tggagtggga gagcaatggc cagcccagaga acaactacaa gaccaccct	1260
cccgtgctgg actccgacgg ctcttcttc ctctacagca agctcaccgt ggacaagagc	1320
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tacaccaga agagcctctc cctgtctccc ggcaaa	1416

<210> 139
 <211> 708
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> nucleotide sequence of C3048 L in IgG form

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tcctgctctg gaggcaccac caacattggg agtaattatg tatcctggta tcagcagctc	180
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gaccgattct ctggctcaa gtctggcacg tcagccaccc tggccatcac cggactccag	300
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ttcggcggag ggaccaagtt aactgtgctt ggccagccta aggctgcccc tagcgtgacc	420
ctgttccctc cttccagcga ggagcttcaa gctaacaagg ccaccctgggt gtgtcttatc	480
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gccggagtgg agaccaccac acctagcaag cagtctaaca acaagtacgc tgccagctcc	600
tacctagacc ttaccctga gcagtggaag tctcacagaa gctactcctg tcaagtgacc	660
cacgagggca gcaccgtgga gaagaccgtg gctcctaccg agtggtcc	708

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 <211> 1410
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FP1804 Sequence Listing.TXT

<213> Artificial Sequence

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<223> nucleotide sequence of C3015 H in IgG form

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tgtgcagcct ctggattcac ctttaggaac tatgccatga gctgggtccg ccagggtcca	180
gggaaggggc tggagtgggt ctcaggtatt agtggtactg gtggtagcac atactacgca	240
gactccgtga agggccggtt caccatctcc agagacaatt ccaaggacac actatatctg	300
caattgaaca gcctgagagc cgaggacacg gccgtatatt actgtgcgaa atcccgtagt	360
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gcctccacca agggcccaag cgtcttcccc ctggcaccct cctccaagag cactctggtc	480
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tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagag agttgagccc	720
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agcacgtacc ggggtggctag cgtcctcacc gtctctgacc aggactggct gaatggcaag	1020
gagtacaagt gcaaggctct caacaaagcc ctcccagccc ccatcgagaa aaccatctcc	1080
aaagccaaag gccagccccg ggaaccacag gtgtacaccc tgcccccatc ccgggaggag	1140
atgaccaaga accaggtcag cctgacctgc ctggtcaaag gcttctatcc cagcgacatc	1200
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<212> DNA

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<220>

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FP1804 Sequence Listing.TXT

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cagtcccctg tgcaggtcat ctatcaagat	accaagcggc cctcagggat ccctgagcga	240
ttctctggct ccaactctgg gaacacagcc	actctgacca tcagcgggac ccaggctatg	300
gatgaggctg actattactg tcaggcgtgg	gacagcaaca ctgtggtatt cggcggaggg	360
accaagttaa ctgtgcttgg ccagcctaag	gctgccccta gcgtgaccct gttccctcct	420
tccagcgagg agcttcaagc taacaaggcc	accctgggtg gtcttatctc tgacttctac	480
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<210> 142
 <211> 1392
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> nucleotide sequence of C3022 H in IgG form

<400> 142		
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tgcaaggctt ctggatacac cttcaccggc	tactatatgc actgggtgcg acaggcccct	180
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cacaagccca gcaacaccaa ggtggacaag	agagttgagc ccaaattctg tgacaaaact	720
cacacatgcc caccctgcc agcacctgaa	ctcctggggg gaccctcagt cttcctcttc	780
ccccaaaac ccaaggacac cctcatgac	tcccggacct ctgaggtcac atgcgtggtg	840
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tccaacaaag ccctccagc ccccatcgag	aaaaccatct ccaaagccaa aggccagccc	1080
cgggaaccac aggtgtacac cctgccccca	tcccgggagg agatgaccaa gaaccaggtc	1140

FP1804 Sequence Listing.TXT

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ttcttctct acagcaagct caccgtggac aagagcaggt ggcagcaggg caacgtcttc 1320
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tctcccgga aa 1392

<210> 143
<211> 708
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of C3022 L in IgG form

<400> 143
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tcttggtctg gaagcaggtc caacatcgga ggtaatatg taagttggtta ccagcagttc 180
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gaccgattct ctgggtccaa gtctggcacc tcagcctccc tggccatcag tggcctccag 300
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cacgagggca gcaccgtgga gaagaccgtg gtcctaccg agtgttcc 708

<210> 144
<211> 464
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of C2037 H in IgG form

<400> 144

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
20 25 30

Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
35 40 45

Thr Gly Tyr Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu

FP1804 Sequence Listing.TXT

50

55

60

Glu Trp Met Gly Arg Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala
65 70 75 80

Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser
85 90 95

Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Ser Gly Lys Ser Asn Tyr Pro Trp Gly Gln Gly Thr
115 120 125

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

Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly
145 150 155 160

Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
165 170 175

Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln
180 185 190

Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
195 200 205

Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser
210 215 220

Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr
225 230 235 240

His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
245 250 255

Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
260 265 270

Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
275 280 285

Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
290 295 300

Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val
305 310 315 320

Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr

FP1804 Sequence Listing.TXT

325

330

335

Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
340 345 350

Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
355 360 365

Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys
370 375 380

Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser
385 390 395 400

Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp
405 410 415

Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser
420 425 430

Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
435 440 445

Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

<210> 145

<211> 236

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of C2037 L in IgG form

<400> 145

Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
1 5 10 15

Gly Ala Tyr Gly Gln Pro Val Leu Thr Gln Pro Pro Ser Ala Ser Gly
20 25 30

Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Asn Ser Asn
35 40 45

Ile Gly Ser Arg Thr Val Asn Trp Tyr Gln His Leu Pro Gly Thr Ala
50 55 60

Pro Arg Leu Leu Ile Tyr Gly Asn Asn Gln Trp Pro Ser Gly Val Pro
65 70 75 80

Asp Arg Phe Ser Gly Ser Lys Ser Gly Ser Ser Ala Ser Leu Ala Ile
85 90 95

FP1804 Sequence Listing.TXT

Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp
100 105 110

Asp Asp Ser Leu Ser Gly Val Val Phe Gly Gly Gly Thr Lys Leu Thr
115 120 125

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

Ser Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile
145 150 155 160

Ser Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser
165 170 175

Ser Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser
180 185 190

Asn Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln
195 200 205

Trp Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser
210 215 220

Thr Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
225 230 235

<210> 146
<211> 472
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of C3048 H in IgG form

<400> 146

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
20 25 30

Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe
35 40 45

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

Glu Trp Met Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala
65 70 75 80

Gln Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Gln Ser Thr Arg
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FP1804 Sequence Listing.TXT

85

90

95

Thr Ala Tyr Met Asp Leu Gly Arg Leu Arg Ser Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Leu Glu Gly Phe Arg Asp Ser Leu Lys Arg Asn Pro
115 120 125

Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser
130 135 140

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
145 150 155 160

Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
165 170 175

Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
180 185 190

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
195 200 205

Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
210 215 220

Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val
225 230 235 240

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
245 250 255

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
260 265 270

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
275 280 285

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
290 295 300

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
305 310 315 320

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
325 330 335

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
340 345 350

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro

FP1804 Sequence Listing.TXT

355

360

365

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
370 375 380

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

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
405 410 415

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
420 425 430

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
435 440 445

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
450 455 460

Ser Leu Ser Leu Ser Pro Gly Lys
465 470

<210> 147

<211> 236

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of C3048 L in IgG form

<400> 147

Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
1 5 10 15

Gly Ala Tyr Gly Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Ala
20 25 30

Ala Pro Gly Gln Lys Val Thr Ile Ser Cys Ser Gly Gly Thr Thr Asn
35 40 45

Ile Gly Ser Asn Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala
50 55 60

Pro Lys Phe Leu Met Tyr Glu Asn Asn Lys Arg Pro Ser Gly Ile Pro
65 70 75 80

Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Ala Ile
85 90 95

Thr Gly Leu Gln Thr Gly Asp Glu Ala Thr Tyr Tyr Cys Ser Thr Trp
100 105 110

FP1804 Sequence Listing.TXT

Asp Ser Ser Leu Asn Thr Gly Leu Phe Gly Gly Gly Thr Lys Leu Thr
115 120 125

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

Ser Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile
145 150 155 160

Ser Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser
165 170 175

Ser Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser
180 185 190

Asn Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln
195 200 205

Trp Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser
210 215 220

Thr Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
225 230 235

<210> 148
<211> 470
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of C3015 H in IgG form
<400> 148

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln
20 25 30

Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
35 40 45

Arg Asn Tyr Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
50 55 60

Glu Trp Val Ser Gly Ile Ser Gly Thr Gly Gly Ser Thr Tyr Tyr Ala
65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asp
85 90 95

Thr Leu Tyr Leu Gln Leu Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
Page 84

100 105 110

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FP1804 Sequence Listing.TXT

370

375

380

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
385 390 395 400

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
405 410 415

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
420 425 430

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
435 440 445

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
450 455 460

Ser Leu Ser Pro Gly Lys
465 470

<210> 149
<211> 232
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of C3015 L in IgG form

<400> 149

Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
1 5 10 15

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

Ser Pro Gly Gln Thr Val Ser Ile Thr Cys Ser Gly Asp Asn Leu Gly
35 40 45

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

Gln Val Ile Tyr Gln Asp Thr Lys Arg Pro Ser Gly Ile Pro Glu Arg
65 70 75 80

Phe Ser Gly Ser Asn Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Gly
85 90 95

Thr Gln Ala Met Asp Glu Ala Asp Tyr Tyr Cys Gln Ala Trp Asp Ser
100 105 110

Asn Thr Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gln
115 120 125

FP1804 Sequence Listing.TXT

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

Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr
145 150 155 160

Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys
165 170 175

Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr
180 185 190

Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His
195 200 205

Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys
210 215 220

Thr Val Ala Pro Thr Glu Cys Ser
225 230

<210> 150

<211> 464

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of C3022 H in IgG form

<400> 150

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
20 25 30

Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
35 40 45

Thr Gly Tyr Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
50 55 60

Glu Trp Met Gly Arg Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala
65 70 75 80

Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser
85 90 95

Thr Ala Tyr Met Glu Leu Ser Gly Leu Arg Ser Asp Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Ser Gly Ser Val Arg His Pro Trp Gly Gln Gly Thr

FP1804 Sequence Listing.TXT

115

120

125

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

Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly
145 150 155 160

Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
165 170 175

Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln
180 185 190

Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
195 200 205

Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser
210 215 220

Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr
225 230 235 240

His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
245 250 255

Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
260 265 270

Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
275 280 285

Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
290 295 300

Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val
305 310 315 320

Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
325 330 335

Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
340 345 350

Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
355 360 365

Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys
370 375 380

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

FP1804 Sequence Listing.TXT

385 390 395 400

Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp
405 410 415

Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser
420 425 430

Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
435 440 445

Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

<210> 151

<211> 236

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of C3022 L in IgG form

<400> 151

Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
1 5 10 15

Gly Ala Tyr Gly Gln Pro Val Leu Thr Gln Pro Pro Ser Ala Ser Gly
20 25 30

Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn
35 40 45

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

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

Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile
85 90 95

Ser Gly Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp
100 105 110

Asp Asp Ser Leu Asn Gly Val Val Phe Gly Gly Gly Thr Lys Leu Thr
115 120 125

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

Ser Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile
145 150 155 160

FP1804 Sequence Listing.TXT

Ser Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser
165 170 175

Ser Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser
180 185 190

Asn Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln
195 200 205

Trp Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser
210 215 220

Thr Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
225 230 235

<210> 152
<211> 354
<212> DNA
<213> Rattus norvegicus

<400> 152
gaggtgcagt tgggtggagtc tggggggaggc ctggtgcagc ctggaagggc cctgaaactc 60
tcctgtgtag tctctggagt cacattcaat tactacggga tgagctggat ccgccaggct 120
ccaggaagg ggctggagtg ggttgcattc attactaatt ctggtggtag aatttactat 180
ccagactctg tgaagggccg attcactatc tccagagaaa atacacaaaa gaccctatac 240
ctacaaatga acagtctgag gtctgaggac acggccactt attactgtac tctcgatggt 300
cgcgatggtt gggttgctta ctggggccaa ggcactctgg tcactgtctc ttca 354

<210> 153
<211> 327
<212> DNA
<213> Rattus norvegicus

<400> 153
cagtttgtgc ttactcagcc aaactctgtg tctacgaatc tcggaaccac agtcgaactg 60
tcttgcaagc gcaacactgg gaacattgga agcaattatg tgaactggta ccagcagcat 120
gaggaagat ctcccaccac tattatttat agggatgata agagaccaga tggagtttct 180
gacaggttct ctgggtccat tgacagatct tccaagtcag ccctcctgac aatcaataat 240
gtgcagactg aagatgaagc tgactacttc tgtcagtctt acagtagtgg ttttattttc 300
ggcgggtggaa ccaagctcac tgtccta 327

<210> 154
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of C3E-7000

<400> 154

FP1804 Sequence Listing.TXT

atgaaacacc tgtggttctt cctcctgctg gtggcagctc ccagatgggt gctgagcgag	60
gtgcagttgg tggagtctgg gggaggcctg gtgcagcctg gaagggccct gaaactctcc	120
tgtgtagtct ctggagtcac attcaattac tacgggatga gctggatccg ccaggctcca	180
gggaaggggc tggagtgggt tgcattccatt actaattctg gtggtagaat ttactatcca	240
gactctgtga agggccgatt cactatctcc agagaaaata cacaaaagac cctataccta	300
caaatgaaca gtctgaggtc tgaggacacg gccacttatt actgtactct cgatggctgc	360
gatggttggg ttgcttactg gggccaaggc actctgggtca ctgtctcttc aggtggaggc	420
ggttcaggcg gaggtggcag cggcgggtggc gggagtcagt ttgtgcttac tcagccaaac	480
tctgtgtcta cgaatctcgg aaccacagtc gaactgtctt gcaagcgcaa cactgggaac	540
attggaagca attatgtgaa ctggtaccag cagcatgagg gaagatctcc caccactatt	600
atttataggg atgataagag accagatgga gtttctgaca ggttctctgg gtccattgac	660
agatcttcca agtcagccct cctgacaatc aataatgtgc agactgaaga tgaagctgac	720
tacttctgtc agtcttacag tagtggtttt attttcggcg gtggaaccaa gctcactgtc	780
ctaggcgcgt ctgcggccgc aggatccggt ggtgattaca aagatgatga cgataaaggt	840
gcagcggcgc atccatcatc tcaccac	867

<210> 155
 <211> 118
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of C3E-7034_VH
 <400> 155

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

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

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

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

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

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

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

FP1804 Sequence Listing.TXT

Leu Val Thr Val Ser Ser
115

<210> 156
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of C3E-7034_VL

<400> 156

Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys
1 5 10 15

Thr Val Thr Ile Ser Cys Lys Arg Asn Thr Gly Asn Ile Gly Ser Asn
20 25 30

Tyr Val Asn Trp Tyr Gln Gln His Glu Gly Ser Ser Pro Thr Thr Ile
35 40 45

Ile Tyr Arg Asp Asp Lys Arg Pro Asp Gly Val Ser Asp Arg Phe Ser
50 55 60

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

Leu Lys Thr Glu Asp Glu Ala Asp Tyr Phe Cys Gln Ser Tyr Ser Ser
85 90 95

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

<210> 157
<211> 864
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of C3E-7034

<400> 157

atgaaacacc tgtggttctt cctcctgctg gtggcagctc ccagatgggt gctgagcgga	60
gaagtgcagc tgggtggaatc cggggggggc ctggtgcagc ctggggggag cctgagactg	120
agttgtgccg cctctggggg gacatttaac tactatggca tgtcttgat ccgccaggca	180
cctggaaaagg gcctggagtg ggtggccagc atcactaatt ccggcgggag aatctactat	240
cccgacagcg tcaagggcag gttcacaatt tcccgcgaga acacacagaa aactctgtac	300
ctgcagatga atagcctgag agccgaagat acagctgtgt actattgcac tctggacggc	360
agggatgggt gggctgccta ttggggggcag ggaaccctgg tgacagtcag ctccggagga	420
ggaggatctg gcggaggagg cagtggggga ggcgggtcaa actttatgct gaccagccc	480

FP1804 Sequence Listing.TXT

cacagtgtgt cagagagccc tggcaagact gtcaccatct cttgtaaaag gaacaccgga 540
aatattggca gtaactacgt gaattggtat cagcagcatg aagggcttag tccaaccaca 600
atcatctacc gggacgataa gagacccgac ggggtgtccg atcgattctc cggatctatc 660
gaccggtcaa gcaagagtgc ttactgacc attagcaatc tgaaaacaga ggacgaagca 720
gattactttt gccagtccta ttctctggc ttcatctttg gaggcgggac taaactgacc 780
gtgctgggcg cggccgcagg tgcaggtggt gattacaaag atgatgacga taaaggtgca 840
gcggcgcac accatcatca ccac 864

<210> 158
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of C3E-7035_VL

<400> 158

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

Arg Val Thr Ile Ser Cys Lys Arg Asn Thr Gly Asn Ile Gly Ser Asn
20 25 30

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

Ile Tyr Arg Asp Asp Lys Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Phe Gln
65 70 75 80

Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Ser Ser Gly Phe
85 90 95

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

<210> 159
<211> 864
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of C3E-7035

<400> 159

atgaaacacc tgtggttctt cctcctgctg gtggcagctc ccagatgggt gctgagcggg 60
gaagtgcagc tgggtggaatc cggggggggc ctggtgcagc ctgggggggag cctgagactg 120
agttgtgccg cctctggggg gacatttaac tactatggca tgtcttggat ccgccaggca 180

FP1804 Sequence Listing.TXT

cctggaaagg gcctggagtg ggtggccagc atcactaatt ccggcgggcg aatctactat	240
cccgacagcg tcaagggcag gttcacaatt tcccgcgaga acacacagaa aactctgtac	300
ctgcagatga atagcctgag agccgaagat acagctgtgt actattgcac tctggacggc	360
agggatgggt gggtcgccta ttgggggagc ggaaccctgg tgacagtcag ctccggagga	420
ggaggatctg gcggaggagg cagtggggga ggcgggtcaa tggcccaggc tgtgtcact	480
cagccgtcct ctgtttctgg cgtacctggc caacgggtga ccattagctg taaaaggaat	540
accgggaata tcgggtctaa ctacgtgaac tggtatcagc agcttcaggc gacagctccc	600
aagttgctga tctatcgca cgacaaaaga ccctcagggg tccctgaccg atttagtggc	660
agcaaaagcg gtacttccgc ttccctggcg ataaccggct ttcaggccga agatgaggca	720
gactactatt gccagtcata ttccagcggc ttcattctcg gaggcggaac taagctgaca	780
gtgctgggag cggccgcagg tgcaggtggg gattacaaag atgatgacga taaaggtgca	840
gcggcgcatc accatcatca ccac	864

<210> 160
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of C3E-7036_VL

<400> 160

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

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

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

Ile	Tyr	Arg	Asp	Asp	Lys	Arg	Pro	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser
	50					55					60				

Gly	Ser	Lys	Ser	Gly	Thr	Ser	Ala	Ser	Leu	Ala	Ile	Thr	Gly	Phe	Gln
65					70					75					80

Ala	Glu	Asp	Glu	Ala	Asp	Tyr	Tyr	Cys	Gln	Ser	Tyr	Ser	Ser	Gly	Phe
			85						90					95	

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

<210> 161
 <211> 858
 <212> DNA
 <213> Artificial Sequence

FP1804 Sequence Listing.TXT

<220>

<223> nucleotide sequence of C3E-7036

<400> 161

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agttgtgccg	cctctggggt	gacatttaac	tactatggca	tgtcttggat	ccgccaggca	180
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cccgcagcgc	tcaagggcag	gttcacaatt	tcccgcgaga	acacacagaa	aactctgtac	300
ctgcagatga	atagcctgag	agccgaagat	acagctgtgt	actattgcac	tctggacggc	360
agggatgggt	gggtcgccct	ttgggggcag	ggaaccctgg	tgacagtcag	ctccggagga	420
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tcctctgttt	ctggcgtacc	tggccaacgc	gtgaccatta	gctgtacggg	taataccggg	540
aataicgggt	ctaactacgt	gaactggtat	cagcagcttc	cagggacagc	tcccaagttg	600
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agcggacttt	ccgcttcctt	ggcgataacc	ggctttcagg	ccgaagatga	ggcagactac	720
tattgccagt	catattccag	cggcttcac	ttcggaaggc	gaactaagct	gacagtgttg	780
ggtgcggccg	caggtgcagg	tggtgattac	aaagatgatg	acgataaagg	tgcagcggcg	840
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<210> 162

<211> 1599

<212> DNA

<213> Artificial Sequence

<220>

<223> nucleotide_sequence_of_C2037-C3E-7034

<400> 162

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tcctgcaagg	ccagcggcta	cacctttacc	ggctactaca	tgcactgggt	gcgccaggct	180
ccaggccagg	gactggaatg	gatggggccg	atcaacccca	atagcggcgg	caccaactac	240
gcccagaaat	tccagggcag	agtgaccatg	acccgggaca	ccagcatcag	caccgcctac	300
atggaactga	gccggctgag	aagcgacgac	accgccgtgt	actactgcgc	cagcggcaag	360
agcaactacc	cttggggcca	gggcacactc	gtgaccgtgt	ctagcggagg	cggaggatct	420
ggcggcggag	gaagtggcgg	agggggatct	cagcctgtgc	tgacacagcc	tcctagcgcc	480
tctggcacac	ctggccagag	agtgacaatc	agctgcagcg	gcagcaacag	caacatcggc	540
agccggaccg	tgaactggta	tcagcatctg	cctggcaccg	ccccagact	gctgatctac	600
ggcaacaacc	agtggcccag	cggcgtgccc	gatagattca	gcggctctaa	gagcggcagc	660
tccgccagcc	tggccatctc	tggactgaga	tccgaggacg	aggccgacta	ctactgtgcc	720

FP1804 Sequence Listing.TXT

gcctgggacg atagcctgag cggcgtggtg tttggcggag gcaccaagct gacagtgtctg	780
ggcggaggcg gttcagaagt gcagctggtg gaatccgggg ggggcctggt gcagcctggg	840
gggagcctga gactgagttg tgccgcctct ggggtgacat ttaactacta tggcatgtct	900
tggatccgcc aggcacctgg aaagggcctg gagtgggtgg ccagcatcac taattccggc	960
gggcgaatct actatcccga cagcgtcaag ggcaggttca caatttcccg cgagaacaca	1020
cagaaaactc tgtacctgca gatgaatagc ctgagagccg aagatacagc tgtgtactat	1080
tgcactctgg acggcagggg tgggtgggtc gcctattggg ggcaggggaa cctgggtgaca	1140
gtcagctccg gaggaggagg atctggcgga ggaggcagtg ggggaggcggt gtcaaacttt	1200
atgctgaccc agccccacag tgtgtcagag agccctggca agactgtcac catctcttgt	1260
aaaaggaaca ccggaaatat tggcagtaac tacgtgaatt ggtatcagca gcatgaaggg	1320
tctagtccaa ccacaatcat ctaccgggac gataagagac ccgacgggggt gtccgatcga	1380
ttctccggat ctatcgaccg gtcaagcaag agtgcttcac tgaccattag caatctgaaa	1440
acagaggacg aagcagatta cttttgccag tcctattcct ctggcttcac ctttggaggc	1500
gggactaaac tgaccgtgct gggcgcgggc gcaggtgcag gtggtgatta caaagatgat	1560
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<210> 163

<211> 1623

<212> DNA

<213> Artificial Sequence

<220>

<223> nucleotide sequence of C3048-C3E-7034

<400> 163

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tcctgcaagg ctagcggcgg caccttcagc agatacgcca tctcttgggt gcgccaggcc	180
cctggacagg gcctggaatg gatgggcggc atcatcccca tcttcggcac cgccaactac	240
gcccagaaat tccagggcag agtgaccatc accgccgacc agagcaccg gaccgcctat	300
atggatctgg gccggctgag aagcgaggac accgccgtgt actactgcgc cctggaaggc	360
ttccgggaca gcctgaagag aaacccttc gacatctggg gccagggcac aatggtcacc	420
gtgtctagcg gaggcggagg atctggcggc ggaggaagtg gcggaggggg atctcagtct	480
gtcgtgaccc agcctcctag cgtgtcagcc gcccaggcc agaaagtgac aatcagctgt	540
tctggcggca ccaccaacat cggcagcaac tacgtgtcct ggtatcagca gctgcccgga	600
accgccccca agttcctgat gtacgagaac aacaagcggc ccagcggcat ccccgacaga	660
ttcagcggca gcaagagcgg cacaagcgcc aactggcca tcaccggact gcagacaggc	720
gacgaggcca cctactactg ctccacctgg gacagcagcc tgaacaccgg cctgtttggc	780
ggaggcacca agctgacagt gctgggcgga ggcggttcag aagtgcagct ggtggaatcc	840

FP1804 Sequence Listing.TXT

ggggggggcc	tggtgcagcc	tggggggagc	ctgagactga	gttgtgccgc	ctctggggtg	900
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gtggccagca	tcactaattc	cggcgggcga	atctactatc	ccgacagcgt	caagggcagg	1020
ttcacaattt	cccgcgagaa	cacacagaaa	actctgtacc	tgcagatgaa	tagcctgaga	1080
gccgaagata	cagctgtgta	ctattgcact	ctggacggca	gggatgggtg	ggtcgcctat	1140
tgggggcagg	gaaccctggt	gacagtcagc	tccggaggag	gaggatctgg	cggaggaggc	1200
agtgggggag	gcggggtcaaa	ctttatgctg	accagcccc	acagtgtgtc	agagagccct	1260
ggcaagactg	tcaccatctc	ttgtaaaagg	aacaccggaa	atattggcag	taactacgtg	1320
aattgggtatc	agcagcatga	aggggtctagt	ccaaccacaa	tcattctaccg	ggacgataag	1380
agacccgacg	gggtgtccga	tcgattctcc	ggatctatcg	accggtcaag	caagagtgtc	1440
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cac						1623

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 <211> 1599
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> nucleotide sequence of C3022-C3E-7034

<400> 164	
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tcctgcaagg	ccagcggcta cacctttacc ggctactaca tgcactgggt gcgccaggct 180
ccaggccagg	gactggaatg gatgggccgg atcaaccca atagcggcgg caccaactac 240
gccagaaat	tccagggcag agtgaccatg acccgggaca ccagcatcag caccgcctac 300
atggaactga	gcggcctgag aagcgacgac accgccgtgt actactgtgc ctctggctct 360
gtgcggcacc	cttggggaca gggaaactc gtgaccgtgt ccagcgggtg aggcgggttca 420
ggcggagggtg	gcagcggcgg tggcgggagt cagcctgtgc tgacacagcc tccaagcgcc 480
tctggcacac	ctggccagag agtgacaatc agctgcagcg gcagcagaag caacatcggc 540
ggcaacatcg	tgtcctggta tcagcagttc cccggcaccg cccctagact gctgacctac 600
gccgacaacc	agaggcctag cggcgtgccc gatagattca gcggctctaa gagcggcacc 660
agcggcagcc	tggccatctc tggcctgcag tctgaggacg aggccgacta ctattgcgcc 720
gcctgggacg	acagcctgaa cggcgtgggtg tttggcggag gcaccaagct gacagtgtgtg 780
ggcggaggcg	gttcagaagt gcagctgggtg gaatccgggg ggggcctggt gcagcctggg 840
gggagcctga	gactgagttg tgccgcctct ggggtgacat ttaactacta tggcatgtct 900

FP1804 Sequence Listing.TXT

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cagaaaactc	tgtacctgca	gatgaatagc	ctgagagccg	aagatacagc	tgtgtactat	1080
tgcactctgg	acggcagggg	tgggtgggtc	gcctattggg	ggcaggggaa	cctggtgaca	1140
gtcagctccg	gaggaggagg	atctggcgga	ggaggcagtg	ggggaggcgg	gtcaaacttt	1200
atgctgaccc	agccccacag	tgtgtcagag	agccctggca	agactgtcac	catctcttgt	1260
aaaaggaaca	ccggaaatat	tggcagtaac	tacgtgaatt	ggtatcagca	gcatgaaggg	1320
tctagtccaa	ccacaatcat	ctaccgggac	gataagagac	ccgacggggg	gtccgatcga	1380
ttctccggat	ctatcgaccg	gtcaagcaag	agtgtttcac	tgaccattag	caatctgaaa	1440
acagaggacg	aagcagatta	cttttgccag	tcctattcct	ctggcttcat	ctttggaggg	1500
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gacgataaag	gtgcagcggc	gcatcaccat	catcaccac			1599

<210> 165
 <211> 1599

<212> DNA
 <213> Artificial Sequence

<220>
 <223> nucleotide sequence of C2037-C3E-7035

<400> 165	
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tcctgcaagg	ccagcggcta cacctttacc ggctactaca tgcactgggt gcgccaggct 180
ccaggccagg	gactggaatg gatgggccc atcaacccca atagcggcgg caccaactac 240
gcccgaaaat	tccagggcag agtgaccatg acccgggaca ccagcatcag caccgcctac 300
atggaactga	gccggctgag aagcgacgac accgccgtgt actactgctc cagcggcaag 360
agcaactacc	cttggggcca gggcacactc gtgaccgtgt cttagcggagg cggaggatct 420
ggcggcggag	gaagtggcgg agggggatct cagcctgtgc tgacacagcc tcctagcgcc 480
tctggcacac	ctggccagag agtgacaatc agctgcagcg gcagcaacag caacatcggc 540
agccggaccg	tgaactggta tcagcatctg cctggcaccg ccccagact gctgatctac 600
ggcaacaacc	agtggcccag cggcgtgccc gatagattca gcggtcttaa gagcggcagc 660
tccgccagcc	tggccatctc tggactgaga tccgaggacg aggccgacta ctactgtgcc 720
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tggatccgcc	aggcacctgg aaagggcctg gagtgggtgg ccagcatcac taattccggc 960
gggcgaatct	actatcccga cagcgtcaag ggcaggttca caatttcccg cgagaacaca 1020

FP1804 Sequence Listing.TXT

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tgcactctgg	acggcagggg	tgggtgggtc	gcctattggg	ggcaggggaa	cctggtgaca	1140
gtcagctccg	gaggaggagg	atctggcgga	ggaggcagtg	ggggaggcgg	gtcaatggcc	1200
caggctgtgc	tcactcagcc	gtcctctgtt	tctggcgtag	ctggccaacg	ggtgaccatt	1260
agctgtaaaa	ggaataccgg	gaatatcggg	tctaactacg	tgaactggta	tcagcagctt	1320
ccagggacag	ctcccaagtt	gctgatctat	cgcgacgaca	aaagaccctc	aggggtccct	1380
gaccgattta	gtggcagcaa	aagcgggtact	tccgcttccc	tggcgataac	cggctttcag	1440
gccgaagatg	aggcagacta	ctattgccag	tcatattcca	gcggcttcat	cttcggaggc	1500
ggaactaagc	tgacagtgtt	gggcgcggcc	gcagggtgag	gtggtgatta	caaagatgat	1560
gacgataaag	gtgcagcggc	gcatcaccat	catcaccac			1599

<210> 166
 <211> 1623
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<220>
 <223> nucleotide sequence of C3048-C3E-7035

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cctggacagg	gcctggaatg gatgggcggc atcatcccca tcttcggcac cgccaactac 240
gcccagaaat	tccagggcag agtgaccatc accgccgacc agagcaccgc gaccgcctat 300
atggatctgg	gccggctgag aagcagggac accgccgtgt actactgcgc cctggaaggc 360
ttccgggaca	gcctgaagag aaacccttc gacatctggg gccagggcac aatggtcacc 420
gtgtctagcg	gaggcggagg atctggcggc ggaggaagtg gcggaggggg atctcagtct 480
gtcgtgacct	agcctcctag cgtgtcagcc gcccaggcc agaaagtgac aatcagctgt 540
tctggcggca	ccaccaacat cggcagcaac tacgtgtcct ggtatcagca gctgcccggg 600
accgccccca	agttcctgat gtacgagaac aacaagcggc ccagcggcat ccccgacaga 660
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ttcacaattt	cccgcgagaa cacacagaaa actctgtacc tgcagatgaa tagcctgaga 1080
gccgaagata	cagctgtgta ctattgcact ctggacggca gggatgggtg ggtcgcctat 1140

FP1804 Sequence Listing.TXT

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gtacctggcc aacgggtgac cattagctgt aaaaggaata ccgggaatat cgggtctaac	1320
tacgtgaact ggtatcagca gcttccaggg acagctccca agttgctgat ctatcgcgac	1380
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tccagcggct tcatcttcgg aggcggaact aagctgacag tgttgggcgc ggccgcaggt	1560
gcaggtggtg attacaaaga tgatgacgat aaaggtgcag cggcgcacat ccatcatcac	1620
cac	1623

<210> 167
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<220>
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ccaggccagg gactggaatg gatgggccgg atcaacccca atagcggcgg caccaactac	240
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tgactctgg acggcagggg tgggtgggtc gcctattggg ggcaggggaa cctggtgaca	1140
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FP1804 Sequence Listing.TXT

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gccgaagatg aggcagacta ctattgccag tcatattcca gcggcttcat cttcggaggc	1500
ggaactaagc tgacagtgtt gggcgcgccc gcagggtgcag gtggtgatta caaagatgat	1560
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<210> 168
 <211> 1593
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> nucleotide sequence of C2037-C3E-7036

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cagaaaactc tgtacctgca gatgaatagc ctgagagccg aagatacagc tgtgtactat	1080
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gtcagctccg gaggaggagg atctggcggg ggaggcagtg ggggaggcgg gtcaaacttt	1200
atgctcactc agccgtcctc tgtttctggc gtacctggcc aacgggtgac cattagctgt	1260
acgggtaata ccgggaatat cgggtctaac tacgtgaact ggtatcagca gcttccaggg	1320

FP1804 Sequence Listing.TXT

acagctccca agttgctgat ctatcgcgac gacaaaagac cctcaggggt ccctgaccga	1380
tttagtggca gcaaaagcgg tacttccgct tccctggcga taaccggctt tcaggccgaa	1440
gatgaggcag actactattg ccagtcatat tccagcggct tcattcttcgg aggcggaact	1500
aagctgacag tgttgggcgc ggccgcaggt gcaggtggtg attacaaaga tgatgacgat	1560
aaaggtgcag cggcgcatca ccatcatcac cac	1593

<210> 169
 <211> 1617
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> nucleotide sequence of C3048-C3E-7036

<400> 169	
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caggtgcagc tgggtgcagtc tggcgccgaa gtgaagaaac ccggcagcag cgtgaagggtg	120
tcctgcaagg ctagcggcgg caccttcagc agatacgcca tctcttgggt gcgccaggcc	180
cctggacagg gcctggaatg gatgggcggc atcatcccca tcttcggcac cgccaactac	240
gccagaaaat tccagggcag agtgaccatc accgccgacc agagcaccgc gaccgcctat	300
atggatctgg gccggctgag aagcgaggac accgccgtgt actactgcgc cctggaaggc	360
ttccgggaca gcctgaagag aaacccttc gacatctggg gccagggcac aatgggtcacc	420
gtgtctagcg gaggcggagg atctggcggc ggaggaagtg gcggaggggg atctcagtct	480
gtcgtgacct agcctcctag cgtgtcagcc gcccaggcc agaaagtgac aatcagctgt	540
tctggcggca ccaccaacat cggcagcaac tacgtgtcct ggtatcagca gctgcccgga	600
accgccccca agttcctgat gtacgagaac aacaagcggc ccagcggcat ccccgacaga	660
ttcagcggca gcaagagcgg cacaagcgcc aactggcca tcaccggact gcagacaggc	720
gacgaggcca cctactactg ctccacctgg gacagcagcc tgaacaccgc cctgtttggc	780
ggaggcacca agctgacagt gctgggcgga ggcggttcag aagtgcagct ggtggaatcc	840
ggggggggcc tgggtgcagcc tggggggagc ctgagactga gttgtgccgc ctctggggtg	900
acatttaact actatggcat gtcttgatc cgccaggcac ctggaaaggc cctggagtgg	960
gtggccagca tcactaattc cggcgggcga atctactatc ccgacagcgt caagggcagg	1020
ttcacaattt cccgcgagaa cacacagaaa actctgtacc tgcagatgaa tagcctgaga	1080
gccgaagata cagctgtgta ctattgcact ctggacggca gggatgggtg ggtcgcctat	1140
tgggggcagg gaaccctggt gacagtcagc tccggaggag gaggatctgg cggaggaggc	1200
agtgggggag gcgggtcaaa ctttatgctc actcagccgt cctctgtttc tggcgtacct	1260
ggccaacggg tgaccattag ctgtacgggt aataccggga atatcgggtc taactacgtg	1320
aactggtatc agcagcttcc agggacagct cccaagttgc tgatctatcg cgacgacaaa	1380
agaccctcag gggtcctga ccgatttagt ggcagcaaaa gcggtacttc cgcttccttg	1440

FP1804 Sequence Listing.TXT

gcgataaccg gctttcaggc cgaagatgag gcagactact attgccagtc atattccagc	1500
ggcttcatct tcggaggcgg aactaagctg acagtgttgg gcgcggccgc aggtgcaggt	1560
ggtgattaca aagatgatga cgataaaggt gcagcggcgc atcaccatca tcaccac	1617

<210> 170
 <211> 1593
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> nucleotide sequence of C3022-C3E-7036

<400> 170	
atgaaacacc tgtggttctt cctcctgctg gtggcagctc ccagatgggt gctgagcgga	60
caggtgcagc tgggtgcagtc tggcgccgaa gtgaagaaac caggcgccag cgtgaagggtg	120
tcctgcaagg ccagcggcta cacctttacc ggctactaca tgcactgggt gcgccaggct	180
ccaggccagg gactggaatg gatgggcccgc atcaacccca atagcggcgg caccaactac	240
gccagaaat tccagggcag agtgaccatg acccgggaca ccagcatcag caccgcctac	300
atggaactga gcggcctgag aagcgacgac accgccgtgt actactgtgc ctctggctct	360
gtgcggcacc cttggggaca gggaaactc gtgaccgtgt ccagcgggtgg aggcggttca	420
ggcggagggtg gcagcggcgg tggcgggagt cagcctgtgc tgacacagcc tccaagcgcc	480
tctggcacac ctggccagag agtgacaatc agctgcagcg gcagcagaag caacatcggc	540
ggcaacatcg tgtcctggta tcagcagttc cccggcaccg cccctagact gctgacctac	600
gccgacaacc agaggcctag cggcgtgccc gatagattca gcggctctaa gagcggcacc	660
agcggcagcc tggccatctc tggcctgcag tctgaggacg aggcggacta ctattgcgcc	720
gcctgggacg acagcctgaa cggcgtggtg tttggcggag gcaccaagct gacagtgtctg	780
ggcggaggcg gttcagaagt gcagctgggtg gaatccgggg ggggcctggt gcagcctggg	840
gggagcctga gactgagttg tgccgcctct ggggtgacat ttaactacta tggcatgtct	900
tggatccgcc aggcacctg aaagggcctg gagtgggtgg ccagcatcac taattccggc	960
gggcgaatct actatcccga cagcgtcaag ggcagggttca caatttcccg cgagaacaca	1020
cagaaaactc tgtacctgca gatgaatagc ctgagagccg aagatacagc tgtgtactat	1080
tgcactctgg acggcaggga tgggtgggtc gcctattggg ggcagggaaac cctggtgaca	1140
gtcagctccg gaggaggagg atctggcgga ggaggcagtg ggggaggcgg gtcaaacttt	1200
atgctcactc agccgtcctc tgtttctggc gtacctggcc aacgggtgac cattagctgt	1260
acgggtaata ccgggaatat cgggtctaac tacgtgaact ggtatcagca gcttccaggg	1320
acagctccca agttgtgat ctatcgcgac gacaaaagac cctcaggggt ccctgaccga	1380
tttagtggca gcaaaagcgg tacttccgct tccctggcga taaccggctt tcaggccgaa	1440
gatgaggcag actactattg ccagtcatat tccagcggct tcatcttcgg aggcggaact	1500
aagctgacag tgttgggcgc ggccgcaggt gcagggtggtg attacaaaga tgatgacgat	1560

aaaggtgcag cggcgcatca ccatcatcac cac

<210> 171
 <211> 533
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of C2037-C3E-7034

<400> 171

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
 1 5 10 15

Val Leu Ser Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys
 20 25 30

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
 35 40 45

Phe Thr Gly Tyr Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly
 50 55 60

Leu Glu Trp Met Gly Arg Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr
 65 70 75 80

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile
 85 90 95

Ser Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala
 100 105 110

Val Tyr Tyr Cys Ala Ser Gly Lys Ser Asn Tyr Pro Trp Gly Gln Gly
 115 120 125

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
 130 135 140

Ser Gly Gly Gly Gly Ser Gln Pro Val Leu Thr Gln Pro Pro Ser Ala
 145 150 155 160

Ser Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Asn
 165 170 175

Ser Asn Ile Gly Ser Arg Thr Val Asn Trp Tyr Gln His Leu Pro Gly
 180 185 190

Thr Ala Pro Arg Leu Leu Ile Tyr Gly Asn Asn Gln Trp Pro Ser Gly
 195 200 205

Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Ser Ser Ala Ser Leu
 210 215 220

FP1804 Sequence Listing.TXT

Ala Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala
225 230 235 240

Ala Trp Asp Asp Ser Leu Ser Gly Val Val Phe Gly Gly Gly Thr Lys
245 250 255

Leu Thr Val Leu Gly Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
260 265 270

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
275 280 285

Ala Ser Gly Val Thr Phe Asn Tyr Tyr Gly Met Ser Trp Ile Arg Gln
290 295 300

Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Ser Ile Thr Asn Ser Gly
305 310 315 320

Gly Arg Ile Tyr Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile Ser
325 330 335

Arg Glu Asn Thr Gln Lys Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg
340 345 350

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Thr Leu Asp Gly Arg Asp Gly
355 360 365

Trp Val Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
370 375 380

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asn Phe
385 390 395 400

Met Leu Thr Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys Thr Val
405 410 415

Thr Ile Ser Cys Lys Arg Asn Thr Gly Asn Ile Gly Ser Asn Tyr Val
420 425 430

Asn Trp Tyr Gln Gln His Glu Gly Ser Ser Pro Thr Thr Ile Ile Tyr
435 440 445

Arg Asp Asp Lys Arg Pro Asp Gly Val Ser Asp Arg Phe Ser Gly Ser
450 455 460

Ile Asp Arg Ser Ser Lys Ser Ala Ser Leu Thr Ile Ser Asn Leu Lys
465 470 475 480

Thr Glu Asp Glu Ala Asp Tyr Phe Cys Gln Ser Tyr Ser Ser Gly Phe
485 490 495

FP1804 Sequence Listing.TXT

Ile Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Ala Ala Ala Gly
500 505 510

Ala Gly Gly Asp Tyr Lys Asp Asp Asp Lys Gly Ala Ala Ala His
515 520 525

His His His His His
530

<210> 172
<211> 541
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of C3048-C3E-7034

<400> 172

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys
20 25 30

Lys Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr
35 40 45

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

Leu Glu Trp Met Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr
65 70 75 80

Ala Gln Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Gln Ser Thr
85 90 95

Arg Thr Ala Tyr Met Asp Leu Gly Arg Leu Arg Ser Glu Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Leu Glu Gly Phe Arg Asp Ser Leu Lys Arg Asn
115 120 125

Pro Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly
130 135 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Ser
145 150 155 160

Val Val Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln Lys Val
165 170 175

Thr Ile Ser Cys Ser Gly Gly Thr Thr Asn Ile Gly Ser Asn Tyr Val
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FP1804 Sequence Listing.TXT

180

185

190

Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Phe Leu Met Tyr
195 200 205

Glu Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser
210 215 220

Lys Ser Gly Thr Ser Ala Thr Leu Ala Ile Thr Gly Leu Gln Thr Gly
225 230 235 240

Asp Glu Ala Thr Tyr Tyr Cys Ser Thr Trp Asp Ser Ser Leu Asn Thr
245 250 255

Gly Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gly Gly Gly
260 265 270

Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly
275 280 285

Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Phe Asn Tyr
290 295 300

Tyr Gly Met Ser Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
305 310 315 320

Val Ala Ser Ile Thr Asn Ser Gly Gly Arg Ile Tyr Tyr Pro Asp Ser
325 330 335

Val Lys Gly Arg Phe Thr Ile Ser Arg Glu Asn Thr Gln Lys Thr Leu
340 345 350

Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr
355 360 365

Cys Thr Leu Asp Gly Arg Asp Gly Trp Val Ala Tyr Trp Gly Gln Gly
370 375 380

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
385 390 395 400

Ser Gly Gly Gly Gly Ser Asn Phe Met Leu Thr Gln Pro His Ser Val
405 410 415

Ser Glu Ser Pro Gly Lys Thr Val Thr Ile Ser Cys Lys Arg Asn Thr
420 425 430

Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln His Glu Gly
435 440 445

Ser Ser Pro Thr Thr Ile Ile Tyr Arg Asp Asp Lys Arg Pro Asp Gly

FP1804 Sequence Listing.TXT

450

455

460

Val Ser Asp Arg Phe Ser Gly Ser Ile Asp Arg Ser Ser Lys Ser Ala
465 470 475 480

Ser Leu Thr Ile Ser Asn Leu Lys Thr Glu Asp Glu Ala Asp Tyr Phe
485 490 495

Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys Leu
500 505 510

Thr Val Leu Gly Ala Ala Ala Gly Ala Gly Gly Asp Tyr Lys Asp Asp
515 520 525

Asp Asp Lys Gly Ala Ala Ala His His His His His His
530 535 540

<210> 173

<211> 533

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of C3022-C3E-7034

<400> 173

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys
20 25 30

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
35 40 45

Phe Thr Gly Tyr Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly
50 55 60

Leu Glu Trp Met Gly Arg Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr
65 70 75 80

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile
85 90 95

Ser Thr Ala Tyr Met Glu Leu Ser Gly Leu Arg Ser Asp Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Ser Gly Ser Val Arg His Pro Trp Gly Gln Gly
115 120 125

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
130 135 140

FP1804 Sequence Listing.TXT

Ser Gly Gly Gly Gly Ser Gln Pro Val Leu Thr Gln Pro Pro Ser Ala
 145 150 155 160
 Ser Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg
 165 170 175
 Ser Asn Ile Gly Gly Asn Ile Val Ser Trp Tyr Gln Gln Phe Pro Gly
 180 185 190
 Thr Ala Pro Arg Leu Leu Thr Tyr Ala Asp Asn Gln Arg Pro Ser Gly
 195 200 205
 Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu
 210 215 220
 Ala Ile Ser Gly Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala
 225 230 235 240
 Ala Trp Asp Asp Ser Leu Asn Gly Val Val Phe Gly Gly Gly Thr Lys
 245 250 255
 Leu Thr Val Leu Gly Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
 260 265 270
 Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
 275 280 285
 Ala Ser Gly Val Thr Phe Asn Tyr Tyr Gly Met Ser Trp Ile Arg Gln
 290 295 300
 Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Ser Ile Thr Asn Ser Gly
 305 310 315 320
 Gly Arg Ile Tyr Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile Ser
 325 330 335
 Arg Glu Asn Thr Gln Lys Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg
 340 345 350
 Ala Glu Asp Thr Ala Val Tyr Tyr Cys Thr Leu Asp Gly Arg Asp Gly
 355 360 365
 Trp Val Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
 370 375 380
 Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asn Phe
 385 390 395 400
 Met Leu Thr Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys Thr Val
 405 410 415

FP1804 Sequence Listing.TXT

Thr Ile Ser Cys Lys Arg Asn Thr Gly Asn Ile Gly Ser Asn Tyr Val
420 425 430

Asn Trp Tyr Gln Gln His Glu Gly Ser Ser Pro Thr Thr Ile Ile Tyr
435 440 445

Arg Asp Asp Lys Arg Pro Asp Gly Val Ser Asp Arg Phe Ser Gly Ser
450 455 460

Ile Asp Arg Ser Ser Lys Ser Ala Ser Leu Thr Ile Ser Asn Leu Lys
465 470 475 480

Thr Glu Asp Glu Ala Asp Tyr Phe Cys Gln Ser Tyr Ser Ser Gly Phe
485 490 495

Ile Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Ala Ala Ala Gly
500 505 510

Ala Gly Gly Asp Tyr Lys Asp Asp Asp Lys Gly Ala Ala Ala His
515 520 525

His His His His His
530

<210> 174

<211> 533

<212> PRT

<213> Artificial sequence

<220>

<223> amino acid sequence of C2037-C3E-7035

<400> 174

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys
20 25 30

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
35 40 45

Phe Thr Gly Tyr Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly
50 55 60

Leu Glu Trp Met Gly Arg Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr
65 70 75 80

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile
85 90 95

Ser Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala
Page 110

FP1804 Sequence Listing.TXT

100

105

110

Val Tyr Tyr Cys Ala Ser Gly Lys Ser Asn Tyr Pro Trp Gly Gln Gly
115 120 125

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
130 135 140

Ser Gly Gly Gly Gly Ser Gln Pro Val Leu Thr Gln Pro Pro Ser Ala
145 150 155 160

Ser Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Asn
165 170 175

Ser Asn Ile Gly Ser Arg Thr Val Asn Trp Tyr Gln His Leu Pro Gly
180 185 190

Thr Ala Pro Arg Leu Leu Ile Tyr Gly Asn Asn Gln Trp Pro Ser Gly
195 200 205

Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Ser Ser Ala Ser Leu
210 215 220

Ala Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala
225 230 235 240

Ala Trp Asp Asp Ser Leu Ser Gly Val Val Phe Gly Gly Gly Thr Lys
245 250 255

Leu Thr Val Leu Gly Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
260 265 270

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
275 280 285

Ala Ser Gly Val Thr Phe Asn Tyr Tyr Gly Met Ser Trp Ile Arg Gln
290 295 300

Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Ser Ile Thr Asn Ser Gly
305 310 315 320

Gly Arg Ile Tyr Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile Ser
325 330 335

Arg Glu Asn Thr Gln Lys Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg
340 345 350

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Thr Leu Asp Gly Arg Asp Gly
355 360 365

Trp Val Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly

FP1804 Sequence Listing.TXT

370

375

380

Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Met Ala
385 390 395 400

Gln Ala Val Leu Thr Gln Pro Ser Ser Val Ser Gly Val Pro Gly Gln
405 410 415

Arg Val Thr Ile Ser Cys Lys Arg Asn Thr Gly Asn Ile Gly Ser Asn
420 425 430

Tyr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
435 440 445

Ile Tyr Arg Asp Asp Lys Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
450 455 460

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Phe Gln
465 470 475 480

Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Ser Ser Gly Phe
485 490 495

Ile Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Ala Ala Ala Gly
500 505 510

Ala Gly Gly Asp Tyr Lys Asp Asp Asp Asp Lys Gly Ala Ala Ala His
515 520 525

His His His His His
530

<210> 175
<211> 541
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of C3048-C3E-7035

<400> 175

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys
20 25 30

Lys Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr
35 40 45

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

FP1804 Sequence Listing.TXT

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

FP1804 Sequence Listing.TXT

Val Lys Gly Arg Phe Thr Ile Ser Arg Glu Asn Thr Gln Lys Thr Leu
340 345 350

Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr
355 360 365

Cys Thr Leu Asp Gly Arg Asp Gly Trp Val Ala Tyr Trp Gly Gln Gly
370 375 380

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
385 390 395 400

Ser Gly Gly Gly Gly Ser Met Ala Gln Ala Val Leu Thr Gln Pro Ser
405 410 415

Ser Val Ser Gly Val Pro Gly Gln Arg Val Thr Ile Ser Cys Lys Arg
420 425 430

Asn Thr Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln Leu
435 440 445

Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr Arg Asp Asp Lys Arg Pro
450 455 460

Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala
465 470 475 480

Ser Leu Ala Ile Thr Gly Phe Gln Ala Glu Asp Glu Ala Asp Tyr Tyr
485 490 495

Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys Leu
500 505 510

Thr Val Leu Gly Ala Ala Ala Gly Ala Gly Gly Asp Tyr Lys Asp Asp
515 520 525

Asp Asp Lys Gly Ala Ala Ala His His His His His His
530 535 540

<210> 176

<211> 533

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of C3022-C3E-7035

<400> 176

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys
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FP1804 Sequence Listing.TXT

20

25

30

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
35 40 45

Phe Thr Gly Tyr Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly
50 55 60

Leu Glu Trp Met Gly Arg Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr
65 70 75 80

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile
85 90 95

Ser Thr Ala Tyr Met Glu Leu Ser Gly Leu Arg Ser Asp Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Ser Gly Ser Val Arg His Pro Trp Gly Gln Gly
115 120 125

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
130 135 140

Ser Gly Gly Gly Gly Ser Gln Pro Val Leu Thr Gln Pro Pro Ser Ala
145 150 155 160

Ser Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg
165 170 175

Ser Asn Ile Gly Gly Asn Ile Val Ser Trp Tyr Gln Gln Phe Pro Gly
180 185 190

Thr Ala Pro Arg Leu Leu Thr Tyr Ala Asp Asn Gln Arg Pro Ser Gly
195 200 205

Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu
210 215 220

Ala Ile Ser Gly Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala
225 230 235 240

Ala Trp Asp Asp Ser Leu Asn Gly Val Val Phe Gly Gly Gly Thr Lys
245 250 255

Leu Thr Val Leu Gly Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
260 265 270

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
275 280 285

Ala Ser Gly Val Thr Phe Asn Tyr Tyr Gly Met Ser Trp Ile Arg Gln

FP1804 Sequence Listing.TXT

290

295

300

Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Ser Ile Thr Asn Ser Gly
305 310 315 320

Gly Arg Ile Tyr Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile Ser
325 330 335

Arg Glu Asn Thr Gln Lys Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg
340 345 350

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Thr Leu Asp Gly Arg Asp Gly
355 360 365

Trp Val Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
370 375 380

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Met Ala
385 390 395 400

Gln Ala Val Leu Thr Gln Pro Ser Ser Val Ser Gly Val Pro Gly Gln
405 410 415

Arg Val Thr Ile Ser Cys Lys Arg Asn Thr Gly Asn Ile Gly Ser Asn
420 425 430

Tyr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
435 440 445

Ile Tyr Arg Asp Asp Lys Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
450 455 460

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Phe Gln
465 470 475 480

Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Ser Ser Gly Phe
485 490 495

Ile Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Ala Ala Ala Gly
500 505 510

Ala Gly Gly Asp Tyr Lys Asp Asp Asp Lys Gly Ala Ala Ala His
515 520 525

His His His His
530

<210> 177
<211> 531
<212> PRT
<213> Artificial sequence

FP1804 Sequence Listing.TXT

<220>

<223> amino acid sequence of C2037-C3E-7036

<400> 177

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys
20 25 30

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
35 40 45

Phe Thr Gly Tyr Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly
50 55 60

Leu Glu Trp Met Gly Arg Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr
65 70 75 80

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile
85 90 95

Ser Thr Ala Tyr Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Ser Gly Lys Ser Asn Tyr Pro Trp Gly Gln Gly
115 120 125

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
130 135 140

Ser Gly Gly Gly Gly Ser Gln Pro Val Leu Thr Gln Pro Pro Ser Ala
145 150 155 160

Ser Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Asn
165 170 175

Ser Asn Ile Gly Ser Arg Thr Val Asn Trp Tyr Gln His Leu Pro Gly
180 185 190

Thr Ala Pro Arg Leu Leu Ile Tyr Gly Asn Asn Gln Trp Pro Ser Gly
195 200 205

Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Ser Ser Ala Ser Leu
210 215 220

Ala Ile Ser Gly Leu Arg Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala
225 230 235 240

Ala Trp Asp Asp Ser Leu Ser Gly Val Val Phe Gly Gly Gly Thr Lys
245 250 255

FP1804 Sequence Listing.TXT

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

FP1804 Sequence Listing.TXT

His His His
530

<210> 178
<211> 539
<212> PRT
<213> Artificial sequence

<220>
<223> amino acid sequence of C3048-C3E-7036
<400> 178

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys
20 25 30

Lys Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr
35 40 45

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

Leu Glu Trp Met Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr
65 70 75 80

Ala Gln Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Gln Ser Thr
85 90 95

Arg Thr Ala Tyr Met Asp Leu Gly Arg Leu Arg Ser Glu Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Leu Glu Gly Phe Arg Asp Ser Leu Lys Arg Asn
115 120 125

Pro Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Gly
130 135 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gln Ser
145 150 155 160

Val Val Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln Lys Val
165 170 175

Thr Ile Ser Cys Ser Gly Gly Thr Thr Asn Ile Gly Ser Asn Tyr Val
180 185 190

Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Phe Leu Met Tyr
195 200 205

Glu Asn Asn Lys Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser
Page 119

FP1804 Sequence Listing.TXT

210
 215
 220

Lys Ser Gly Thr Ser Ala Thr Leu Ala Ile Thr Gly Leu Gln Thr Gly
 225 230 235 240

Asp Glu Ala Thr Tyr Tyr Cys Ser Thr Trp Asp Ser Ser Leu Asn Thr
 245 250 255

Gly Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gly Gly Gly
 260 265 270

Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly
 275 280 285

Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Phe Asn Tyr
 290 295 300

Tyr Gly Met Ser Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
 305 310 315 320

Val Ala Ser Ile Thr Asn Ser Gly Gly Arg Ile Tyr Tyr Pro Asp Ser
 325 330 335

Val Lys Gly Arg Phe Thr Ile Ser Arg Glu Asn Thr Gln Lys Thr Leu
 340 345 350

Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr
 355 360 365

Cys Thr Leu Asp Gly Arg Asp Gly Trp Val Ala Tyr Trp Gly Gln Gly
 370 375 380

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
 385 390 395 400

Ser Gly Gly Gly Gly Ser Asn Phe Met Leu Thr Gln Pro Ser Ser Val
 405 410 415

Ser Gly Val Pro Gly Gln Arg Val Thr Ile Ser Cys Thr Gly Asn Thr
 420 425 430

Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln Leu Pro Gly
 435 440 445

Thr Ala Pro Lys Leu Leu Ile Tyr Arg Asp Asp Lys Arg Pro Ser Gly
 450 455 460

Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu
 465 470 475 480

Ala Ile Thr Gly Phe Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln

FP1804 Sequence Listing.TXT

485

490

495

Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys Leu Thr Val
500 505 510

Leu Gly Ala Ala Ala Gly Ala Gly Gly Asp Tyr Lys Asp Asp Asp Asp
515 520 525

Lys Gly Ala Ala Ala His His His His His His
530 535

<210> 179

<211> 531

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of C3022-C3E-7036

<400> 179

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1 5 10 15

Val Leu Ser Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys
20 25 30

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
35 40 45

Phe Thr Gly Tyr Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly
50 55 60

Leu Glu Trp Met Gly Arg Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr
65 70 75 80

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile
85 90 95

Ser Thr Ala Tyr Met Glu Leu Ser Gly Leu Arg Ser Asp Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Ser Gly Ser Val Arg His Pro Trp Gly Gln Gly
115 120 125

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
130 135 140

Ser Gly Gly Gly Gly Ser Gln Pro Val Leu Thr Gln Pro Pro Ser Ala
145 150 155 160

Ser Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg
165 170 175

FP1804 Sequence Listing.TXT

Ser Asn Ile Gly Gly Asn Ile Val Ser Trp Tyr Gln Gln Phe Pro Gly
180 185 190

Thr Ala Pro Arg Leu Leu Thr Tyr Ala Asp Asn Gln Arg Pro Ser Gly
195 200 205

Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu
210 215 220

Ala Ile Ser Gly Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala
225 230 235 240

Ala Trp Asp Asp Ser Leu Asn Gly Val Val Phe Gly Gly Gly Thr Lys
245 250 255

Leu Thr Val Leu Gly Gly Gly Gly Ser Glu Val Gln Leu Val Glu Ser
260 265 270

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
275 280 285

Ala Ser Gly Val Thr Phe Asn Tyr Tyr Gly Met Ser Trp Ile Arg Gln
290 295 300

Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Ser Ile Thr Asn Ser Gly
305 310 315 320

Gly Arg Ile Tyr Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile Ser
325 330 335

Arg Glu Asn Thr Gln Lys Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg
340 345 350

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Thr Leu Asp Gly Arg Asp Gly
355 360 365

Trp Val Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
370 375 380

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asn Phe
385 390 395 400

Met Leu Thr Gln Pro Ser Ser Val Ser Gly Val Pro Gly Gln Arg Val
405 410 415

Thr Ile Ser Cys Thr Gly Asn Thr Gly Asn Ile Gly Ser Asn Tyr Val
420 425 430

Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr
435 440 445

FP1804 Sequence Listing.TXT

Arg Asp Asp Lys Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser
450 455 460

Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Phe Gln Ala Glu
465 470 475 480

Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe
485 490 495

Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Ala Ala Ala Gly Ala Gly
500 505 510

Gly Asp Tyr Lys Asp Asp Asp Asp Lys Gly Ala Ala Ala His His His
515 520 525

His His His
530

<210> 180
<211> 269
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of C3E-7034

<400> 180

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

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

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

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

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

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

Cys Thr Leu Asp Gly Arg Asp Gly Trp Val Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Asn Phe Met Leu Thr Gln Pro His Ser Val
Page 123

FP1804 Sequence Listing.TXT

130

135

140

Ser Glu Ser Pro Gly Lys Thr Val Thr Ile Ser Cys Lys Arg Asn Thr
145 150 155 160

Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln His Glu Gly
165 170 175

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

Val Ser Asp Arg Phe Ser Gly Ser Ile Asp Arg Ser Ser Lys Ser Ala
195 200 205

Ser Leu Thr Ile Ser Asn Leu Lys Thr Glu Asp Glu Ala Asp Tyr Phe
210 215 220

Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys Leu
225 230 235 240

Thr Val Leu Gly Ala Ala Ala Gly Ala Gly Gly Asp Tyr Lys Asp Asp
245 250 255

Asp Asp Lys Gly Ala Ala Ala His His His His His His
260 265

<210> 181
<211> 269
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of C3E-7035
<400> 181

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

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

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

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

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

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

FP1804 Sequence Listing.TXT

Cys Thr Leu Asp Gly Arg Asp Gly Trp Val Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Met Ala Gln Ala Val Leu Thr Gln Pro Ser
130 135 140

Ser Val Ser Gly Val Pro Gly Gln Arg Val Thr Ile Ser Cys Lys Arg
145 150 155 160

Asn Thr Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln Leu
165 170 175

Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr Arg Asp Asp Lys Arg Pro
180 185 190

Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala
195 200 205

Ser Leu Ala Ile Thr Gly Phe Gln Ala Glu Asp Glu Ala Asp Tyr Tyr
210 215 220

Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys Leu
225 230 235 240

Thr Val Leu Gly Ala Ala Ala Gly Ala Gly Gly Asp Tyr Lys Asp Asp
245 250 255

Asp Asp Lys Gly Ala Ala Ala His His His His His His
260 265

<210> 182

<211> 267

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of C3E-7036

<400> 182

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

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

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

Val Ala Ser Ile Thr Asn Ser Gly Gly Arg Ile Tyr Tyr Pro Asp Ser
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FP1804 Sequence Listing.TXT

50

55

60

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

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

Cys Thr Leu Asp Gly Arg Asp Gly Trp Val Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Asn Phe Met Leu Thr Gln Pro Ser Ser Val
130 135 140

Ser Gly Val Pro Gly Gln Arg Val Thr Ile Ser Cys Thr Gly Asn Thr
145 150 155 160

Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln Leu Pro Gly
165 170 175

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

Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu
195 200 205

Ala Ile Thr Gly Phe Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln
210 215 220

Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys Leu Thr Val
225 230 235 240

Leu Gly Ala Ala Ala Gly Ala Gly Gly Asp Tyr Lys Asp Asp Asp Asp
245 250 255

Lys Gly Ala Ala Ala His His His His His His
260 265

<210> 183

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of C3E-7000_H_CDR1

<400> 183

Gly Val Thr Phe Asn Tyr Tyr Gly
1 5

FP1804 Sequence Listing.TXT

<210> 184
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of C3E-7000_H_CDR2

<400> 184

Ile Thr Asn Ser Gly Gly Arg Ile
 1 5

<210> 185
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of C3E-7000_H_CDR3

<400> 185

Thr Leu Asp Gly Arg Asp Gly Trp Val Ala Tyr
 1 5 10

<210> 186
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of C3E-7000_L_CDR1

<400> 186

Thr Gly Asn Ile Gly Ser Asn Tyr
 1 5

<210> 187
 <211> 3
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of C3E-7000_L_CDR2

<400> 187

Arg Asp Asp
 1

<210> 188
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of C3E-7000_L_CDR3

<400> 188

Gln Ser Tyr Ser Ser Gly Phe Ile

FP1804 Sequence Listing.TXT

1

5

<210> 189
<211> 207
<212> PRT
<213> Homo sapiens

<400> 189

Met Gln Ser Gly Thr His Trp Arg Val Leu Gly Leu Cys Leu Leu Ser
1 5 10 15

Val Gly Val Trp Gly Gln Asp Gly Asn Glu Glu Met Gly Gly Ile Thr
20 25 30

Gln Thr Pro Tyr Lys Val Ser Ile Ser Gly Thr Thr Val Ile Leu Thr
35 40 45

Cys Pro Gln Tyr Pro Gly Ser Glu Ile Leu Trp Gln His Asn Asp Lys
50 55 60

Asn Ile Gly Gly Asp Glu Asp Asp Lys Asn Ile Gly Ser Asp Glu Asp
65 70 75 80

His Leu Ser Leu Lys Glu Phe Ser Glu Leu Glu Gln Ser Gly Tyr Tyr
85 90 95

Val Cys Tyr Pro Arg Gly Ser Lys Pro Glu Asp Ala Asn Phe Tyr Leu
100 105 110

Tyr Leu Arg Ala Arg Val Cys Glu Asn Cys Met Glu Met Asp Val Met
115 120 125

Ser Val Ala Thr Ile Val Ile Val Asp Ile Cys Ile Thr Gly Gly Leu
130 135 140

Leu Leu Leu Val Tyr Tyr Trp Ser Lys Asn Arg Lys Ala Lys Ala Lys
145 150 155 160

Pro Val Thr Arg Gly Ala Gly Ala Gly Gly Arg Gln Arg Gly Gln Asn
165 170 175

Lys Glu Arg Pro Pro Pro Val Pro Asn Pro Asp Tyr Glu Pro Ile Arg
180 185 190

Lys Gly Gln Arg Asp Leu Tyr Ser Gly Leu Asn Gln Arg Arg Ile
195 200 205

<210> 190
<211> 345
<212> DNA
<213> Artificial Sequence

<220>

FP1804 Sequence Listing.TXT

<223> nucleotide sequence of E1018 VH

<400> 190
caggtgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttctggata caccttcacc ggctactata tgcactgggt gcgacaggcc 120
cctggacaag ggcttgagtg gatgggacgg atcaacccta acagtgggtg cacaaactat 180
gcacagaagt ttcagggcag ggtcaccatg accaggggaca cgtccatcag cacagcctac 240
atggagctga gcgggctgag atctgacgac acggccgttt attactgtaa gagtggtagt 300
gtaaggcctc cctggggcca ggaaccctg gtcaccgtct cctca 345

<210> 191
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of E1018 VH

<400> 191
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Arg Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80
Met Glu Leu Ser Gly Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Lys Ser Gly Ser Val Arg Pro Pro Trp Gly Gln Gly Thr Leu Val Thr
100 105 110
Val Ser Ser
115

<210> 192
<211> 330
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of E1018 VL

<400> 192
cagcctgtgc tgactcagcc accctcagcg tctgggaccc ccgggcagag ggtcaccatc 60

FP1804 Sequence Listing.TXT

tcttgttctg gaagcaggtc caacatcgga ggtaatatg taagttggta ccagcagttc	120
ccaggaacgg cccccagact cctcacttat cggaatactc ggcggccctc aggggtccct	180
gaccgattct ctggctccaa gtctggcacc tcagcctccc tggccatcag tggcctccag	240
tctgaggatg aggctgacta ttattgtgca gcatgggatg acagcctggg ggggtgttg	300
ttcggaggag gcaccaagct gaccgtccta	330

<210> 193
 <211> 110
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of E1018 VL
 <400> 193

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

<210> 194
 <211> 369
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> nucleotide sequence of D1012 VH

caggttcagc tggttcagtc tggcgccgaa gtgaagaaac ctggcagcag cgtgaaggtg	60
tcctgcaaag cttctggcgg caccctgagc agatacgcca tctcttgggt tcgacaggcc	120
cctggacaag gcctggaatg gatgggaggc atcatcccca tcttcggcac cgccaattac	180
gcccagaaat tccagggcag agtgaccatc accgccgacc agtctaccag aaccgcctac	240
atggagctgg gcagactgag aagcgaggac accgccgtgt actactgtgc tctggaaggc	300

FP1804 Sequence Listing.TXT

ttccgggaca gcctgaagag aaaccccggtg gacatctggg gcagaggcac catggttaca 360
gtgtctagc 369

<210> 195
<211> 123
<212> PRT
<213> Artificial sequence

<220>
<223> amino acid sequence of D1012 VH

<400> 195

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

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

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

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

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

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

Ala Leu Glu Gly Phe Arg Asp Ser Leu Lys Arg Asn Pro Val Asp Ile
100 105 110

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

<210> 196
<211> 330
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of D1012 VL

<400> 196

caatctgtgg tcacacagcc tccaagcgtg tcagctgccc caggccagaa agtgacaatc 60
ccttgtagcg gcggcaccac caacatcggc agcaattacg tgtcctggta tcagcagctg 120
cccgaacag cccctaagtt cctgatgtac gagaacaaca agcggcccag cggcatcccc 180
gatagatttt ctggcagcaa gagcggcacc agcggcacac tggctattac aggactggag 240
acagaggacg aggccaccta ctactgtagc acctgggaca gcagcctgaa cgccggactt 300
tttgaggcg gcacagagct gacagttctt 330

FP1804 Sequence Listing.TXT

<210> 197
 <211> 110
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of D1012 VL

<400> 197

Gln Ser Val Val Thr Gln Pro Pro Ser Val Ser Ala Ala Pro Gly Gln
 1 5 10 15

Lys Val Thr Ile Pro Cys Ser Gly Gly Thr Thr Asn Ile Gly Ser Asn
 20 25 30

Tyr Val Ser Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Phe Leu
 35 40 45

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

Gly Ser Lys Ser Gly Thr Ser Ala Thr Leu Ala Ile Thr Gly Leu Glu
 65 70 75 80

Thr Glu Asp Glu Ala Thr Tyr Tyr Cys Ser Thr Trp Asp Ser Ser Leu
 85 90 95

Asn Ala Gly Leu Phe Gly Gly Gly Thr Glu Leu Thr Val Leu
 100 105 110

<210> 198
 <211> 1425
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> nucleotide sequence of h2B1 Fab HC_1

<400> 198

atgaggccta cctgggcctg gtggctgttc ctggtgctgc tgctggccct gtgggcccc	60
gcccggggcc aggtgcagct ggtggagtcc ggcggcggcc tggatgaagcc cagccagacc	120
ctgtccctga cctgcacatt cagcggcttt tccctgaaca catacgatat gggagtggga	180
tggatcagac agccacctgg caagggcctg gagtggatcg gcaacatctg gtgggacgat	240
gacaagtact ataatccctc tctgaagagc agagtgaacca tctctaagga tacaagcaac	300
aatcaggcct ccctgaagct gagctccgtg accgccgccg acacagccgt gtactattgc	360
gccaggatcg agacagtgcg ggtgagccgg aagggattcg cacactgggg acagggcacc	420
ctggtgacag tgtctagcgc tagcacaaag ggacctagcg tgttcccact ggcccccttc	480
tctaagtcca cctctggagg aacagccgcc ctgggctgta gggatgaagga ctatttcct	540
gagccagtga ccgtgtcctg gaactctggg gccctgacca gcggagtgca cacatttcct	600

FP1804 Sequence Listing.TXT

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gccgtgctgc agagctccgg cctgtacagc ctgtctagcg tggtgaccgt gccatcctct      660
agcctggggca cccagacata tatctgcaac gtgaatcaca agccaagcaa tacaaaggct      720
gacaagcggg tggagcccaa gtcctgtgac aagaccaca catgcccacc ctgtccggcg      780
ccagaggctg caggaggacc aagcgtgttc ctgtttccac ccaagcctaa agacacactg      840
atgatttccc gaacccccga agtcacatgc gtggtcgtgt ctgtgagtca cgaggaccct      900
gaagtcaagt tcaactggta cgtggatggc gtcgagggtgc ataatgcaa gactaaacct      960
agggaggaac agtacaactc aacctatcgc gtcgtgagcg tcctgacagt gctgcaccag     1020
gattggctga acggcaaaga atataagtg aaagtgagca ataaggccct gcccgctcct     1080
atcgagaaaa ccatttccaa ggctaaaggg cagcctcgcg aaccacaggt ctacgtgctg     1140
ccccctagcc gcgacgaact gactaaaaat caggctcttc tgctgtgtct ggtcaaagga     1200
ttctaccctt ccgacatcgc cgtggagtgg gaaagtaacg gccagcccga gaacaattac     1260
ctgacctggc cccctgtgct ggactctgat gggagtttct ttctgtattc aaagctgaca     1320
gtcgataaaa gccggtggca gcagggaat gtgttcagct gctccgtcat gcacgaagca     1380
ctgcacaacc attacactca gaagtccttg tccctgtcac ctggc                       1425

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<210> 199
 <211> 475
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of H2B1 Fab HC_1
 <400> 199

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Met Arg Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Leu Ala
1          5          10          15

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

Gly Leu Val Lys Pro Ser Gln Thr Leu Ser Leu Thr Cys Thr Phe Ser
          35          40          45

Gly Phe Ser Leu Asn Thr Tyr Asp Met Gly Val Gly Trp Ile Arg Gln
          50          55          60

Pro Pro Gly Lys Gly Leu Glu Trp Ile Gly Asn Ile Trp Trp Asp Asp
65          70          75          80

Asp Lys Tyr Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Lys
          85          90          95

Asp Thr Ser Asn Asn Gln Ala Ser Leu Lys Leu Ser Ser Val Thr Ala
          100          105          110

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FP1804 Sequence Listing.TXT

Ala Asp Thr Ala Val Tyr Tyr Cys Ala Arg Ile Glu Thr Val Arg Val
115 120 125

Ser Arg Lys Gly Phe Ala His Trp Gly Gln Gly Thr Leu Val Thr Val
130 135 140

Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser
145 150 155 160

Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Arg Val Lys
165 170 175

Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu
180 185 190

Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu
195 200 205

Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr
210 215 220

Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val
225 230 235 240

Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro
245 250 255

Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
260 265 270

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

Thr Cys Val Val Val Ser Val Ser His Glu Asp Pro Glu Val Lys Phe
290 295 300

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
305 310 315 320

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
325 330 335

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
340 345 350

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
355 360 365

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Val Leu Pro Pro Ser Arg
370 375 380

FP1804 Sequence Listing.TXT

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Leu Cys Leu Val Lys Gly
385 390 395 400

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
405 410 415

Glu Asn Asn Tyr Leu Thr Trp Pro Pro Val Leu Asp Ser Asp Gly Ser
420 425 430

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
435 440 445

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
450 455 460

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
465 470 475

<210> 200
<211> 1425
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide_sequence_of_h2B1_Fab_HC_2

<400> 200
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ctgtccctga cctgcacatt cagcggcttt tccctgaaca catacgatat gggagtggga 180
tggatcagac agccacctgg caagggcctg gagtggatcg gcaacatctg gtgggacgat 240
gacaagtact ataatccctc tctgaagagc agagtgacca tctctaagga tacaagcaac 300
aatcaggcct ccctgaagct gagctccgtg accgccgccg acacagccgt gtactattgc 360
gccaggatcg agacagtgcg ggtgagccgg aagggattcg cacttgggg acagggcacc 420
ctggtgacag tgtctagcgc tagcaccaag ggacctagcg tgttcccaga ggccccttcc 480
tctaagtcca cctctggagg aacagccgcc ctgggctgtc tggtgaccga ctatttccct 540
gagccagtga cagtgtcctg gaactctggg gccctgacca gcggagtgc cactttcct 600
gccgtgctgg agagctccgg cctgtacagc ctgtctagcg tggtgaccgt gccatcctct 660
agcctgggca cccagacata tatctgcaac gtgaatcaca agccaagcaa tacaagggtc 720
gacaagagag tggagcccaa gtcctgtgac aagaccaca catgcccacc ctgtccggcg 780
ccagaggctg caggaggacc aagcgtgttc ctgtttccac ccaagcctaa agacacactg 840
atgatttccc gaacccccga agtcacatgc gtggtcgtgt ctgtgagtca cgaggaccct 900
gaagtcaagt tcaactggta cgtggatggc gtcgaggtgc ataatgcaa gactaaacct 960
agggaggaac agtacaactc aacctatcgc gtcgtgagcg tcctgacagt gctgcaccag 1020
gattggctga acggcaaaga atataagtgc aaagtgagca ataaggccct gcccgtcct 1080

FP1804 Sequence Listing.TXT

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ccccctagcc gcgacgaact gactaaaaat caggtctctc tgctgtgtct ggtcaaagga	1200
ttctaccctt ccgacatcgc cgtggagtgg gaaagtaacg gccagcccga gaacaattac	1260
ctgacctggc cccctgtgct ggactctgat gggagtttct ttctgtattc aaagctgaca	1320
gtcgataaaa gccggtggca gcagggcaat gtgttcagct gctccgtcat gcacgaagca	1380
ctgcacaacc attacactca gaagtcctg tccctgtcac ctggc	1425

<210> 201
 <211> 475
 <212> PRT
 <213> Artificial sequence

<220>
 <223> amino acid sequence of h2B1 Fab HC_2

<400> 201

Met	Arg	Pro	Thr	Trp	Ala	Trp	Trp	Leu	Phe	Leu	Val	Leu	Leu	Leu	Ala
1				5					10					15	

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

Gly	Leu	Val	Lys	Pro	Ser	Gln	Thr	Leu	Ser	Leu	Thr	Cys	Thr	Phe	Ser
		35					40					45			

Gly	Phe	Ser	Leu	Asn	Thr	Tyr	Asp	Met	Gly	Val	Gly	Trp	Ile	Arg	Gln
	50					55					60				

Pro	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Ile	Gly	Asn	Ile	Trp	Trp	Asp	Asp
65					70					75				80	

Asp	Lys	Tyr	Tyr	Asn	Pro	Ser	Leu	Lys	Ser	Arg	Val	Thr	Ile	Ser	Lys
				85					90					95	

Asp	Thr	Ser	Asn	Asn	Gln	Ala	Ser	Leu	Lys	Leu	Ser	Ser	Val	Thr	Ala
			100					105					110		

Ala	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Ile	Glu	Thr	Val	Arg	Val
		115					120					125			

Ser	Arg	Lys	Gly	Phe	Ala	His	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val
	130					135					140				

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

Ser	Lys	Ser	Thr	Ser	Gly	Gly	Thr	Ala	Ala	Leu	Gly	Cys	Leu	Val	Thr
				165					170					175	

FP1804 Sequence Listing.TXT

Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu
180 185 190

Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Glu Ser Ser Gly Leu
195 200 205

Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr
210 215 220

Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val
225 230 235 240

Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro
245 250 255

Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
260 265 270

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

Thr Cys Val Val Val Ser Val Ser His Glu Asp Pro Glu Val Lys Phe
290 295 300

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
305 310 315 320

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
325 330 335

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
340 345 350

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
355 360 365

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Val Leu Pro Pro Ser Arg
370 375 380

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Leu Cys Leu Val Lys Gly
385 390 395 400

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
405 410 415

Glu Asn Asn Tyr Leu Thr Trp Pro Pro Val Leu Asp Ser Asp Gly Ser
420 425 430

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
435 440 445

FP1804 Sequence Listing.TXT

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
450 455 460

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
465 470 475

<210> 202
<211> 711
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of h2B1 Fab LC_1

<400> 202
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gccggggggg ccaccagaat gacacagtct ccaagctcct tttccgcctc tacaggcgac 120
agagtgacca tcacatgcaa ggccagccag tccgtgggca tcaacgtgga ttggtaccag 180
cagaagcctg gcaagtcccc caagctgctg atctatgggg ccagcaatag gcacaccggc 240
gtgccttctc gcttctctgg cagcggcttc ggcagggact ttaccctgac aatctctagc 300
ctgcagagcg aggatttcgc cacctactat tgtctgcagc acggctccat cccccctacc 360
tttggcggag gcacaaaggt ggagatcaag agaacagtgg cggcgcccag tgtcttcatt 420
tttcccccta gcgacgaaga gctgaagtct gggacagcca gtgtggactg ttggctgaac 480
aacttctacc ctagagaggc taaagtgcag tggaaggtcg ataacgcact gcagtccgga 540
aattctcagg agagtgtgac tgaacaggac tcaaaagata gcacctattc cctgtcaagc 600
acactgactc tgagcaaggc cgactacgag aagcataaag tgtatgcttg tgaagtcacc 660
caccaggggc tgagttcacc agtcacaaaa tcattcaaca gaggggagtg c 711

<210> 203
<211> 237
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of h2B1 Fab LC_1

<400> 203

Met Arg Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Leu Ala
1 5 10 15

Leu Trp Ala Pro Ala Arg Gly Ala Thr Arg Met Thr Gln Ser Pro Ser
20 25 30

Ser Phe Ser Ala Ser Thr Gly Asp Arg Val Thr Ile Thr Cys Lys Ala
35 40 45

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

FP1804 Sequence Listing.TXT

Lys Ser Pro Lys Leu Leu Ile Tyr Gly Ala Ser Asn Arg His Thr Gly
65 70 75 80

Val Pro Ser Arg Phe Ser Gly Ser Gly Phe Gly Arg Asp Phe Thr Leu
85 90 95

Thr Ile Ser Ser Leu Gln Ser Glu Asp Phe Ala Thr Tyr Tyr Cys Leu
100 105 110

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

Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser
130 135 140

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

Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala
165 170 175

Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys
180 185 190

Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp
195 200 205

Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu
210 215 220

Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 204

<211> 711

<212> DNA

<213> Artificial Sequence

<220>

<223> nucleotide sequence of h2B1 Fab LC_2

<400> 204

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gcccgggggg ccaccagaat gacacagtct ccaagctcct tttccgcctc tacaggcgac 120

agagtgacca tcacatgcaa ggccagccag tccgtgggca tcaacgtgga ttggtaccag 180

cagaagcctg gcaagtcccc caagctgctg atctatgggg ccagcaatag gcacaccggc 240

gtgccttctc gcttctctgg cagcggcttc ggcagggact ttaccctgac aatctctagc 300

ctgcagagcg aggatttcgc cacctactat tgtctgcagc acggctccat cccccctacc 360

tttggcggag gcacaaagggt ggagatcaag agaacagtgg cggcgcccag tgtcttcatt 420

tttcccccta gcgacgaaca gctgaagtct gggacagcca gagtgggctg ttggctgaac 480

FP1804 Sequence Listing.TXT

aacttctacc ctagagaggc taaagtgcag tggaaggctc ataacgcact gcagtcgga 540
aattctcagg agagtgtgac tgaacaggac tcaaaagata gcacctattc cctgagaagc 600
aacttgactc tgagcaaggc cgactacgag aagcataaag tgtatgcttg tgaagtcacc 660
caccaggggc tgagttcacc agtcacaaaa tcattcaaca gaggggagtg c 711

<210> 205
<211> 237
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of h2B1 Fab LC_2

<400> 205

Met Arg Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Leu Ala
1 5 10 15

Leu Trp Ala Pro Ala Arg Gly Ala Thr Arg Met Thr Gln Ser Pro Ser
20 25 30

Ser Phe Ser Ala Ser Thr Gly Asp Arg Val Thr Ile Thr Cys Lys Ala
35 40 45

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

Lys Ser Pro Lys Leu Leu Ile Tyr Gly Ala Ser Asn Arg His Thr Gly
65 70 75 80

Val Pro Ser Arg Phe Ser Gly Ser Gly Phe Gly Arg Asp Phe Thr Leu
85 90 95

Thr Ile Ser Ser Leu Gln Ser Glu Asp Phe Ala Thr Tyr Tyr Cys Leu
100 105 110

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

Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser
130 135 140

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

Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala
165 170 175

Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys
180 185 190

FP1804 Sequence Listing.TXT

Asp Ser Thr Tyr Ser Leu Arg Ser Thr Leu Thr Leu Ser Lys Ala Asp
195 200 205

Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu
210 215 220

Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 206
<211> 1413
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of C3E-7034 Fab HC

<400> 206
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gcccggggcg gcgaggtgca gctggtggag agcggcgggc gcctggtgca gcccggcggc 120
tctctgcggc tgagctgcgc cgcctccggc gtgacattca actactatgg catgtcctgg 180
atcagacagg ccccaggcaa gggcctggag tgggtggcct ctatcaccaa tagcggcggc 240
aggatctact atcccgactc cgtgaagggc cggtttataa tctctagaga gaacacccag 300
aagacactgt acctgcagat gaacagcctg cgggccgagg ataccgccgt gtactattgt 360
acactggacg gcagagacgg atgggtggca tattggggac agggcaccct ggtgacagtg 420
agctccgcta gcactaaagg cccaagcgtg tttcctctgg ctccaagctc aaaaagcact 480
tccgggggga ccgcatggct gggatgtgat gtgaccgact acttccccga gcctgtgacc 540
gtgtcctgga actctggggc cctgaccagc ggagtgcaca catttccagc cgtgctgcag 600
agctccggcc tgtatagcct gtctagcgtg gtgacagtgc cctccagtag cctgggcact 660
cagacttata tctgtaatgt caaccacaaa ccatcaaaaca ccaaagtcga caagaaagtg 720
gagcccaaga gctgtgataa aactcatacc tgcccacctt gtccggcgcc agaggctgca 780
ggaggaccaa gcgtgttcct gtttccaccc aagcctaaag acacactgat gatttcccga 840
acccccgaag tcacatgcgt ggtcgtgtct gtgagtcacg aggaccctga agtcaagttc 900
aactggtacg tggatggcgt cgaggtgcat aatgccaaga ctaaaccctag ggaggaacag 960
tacaactcaa cctatcgcgt cgtgagcgtc ctgacagtgc tgcaccagga ttggctgaac 1020
ggcaaagaat ataagtcaa agtgagcaat aaggccctgc ccgctcctat cgagaaaacc 1080
atttccaagg ctaaagggca gcctcgcgaa ccacaggtct acgtctaccc cccatcaaga 1140
gatgaactga caaaaaatca ggtctctctg acatgcctgg tcaaaggatt ctacccttcc 1200
gacatcgccg tggagtggga aagtaacggc cagcccgaga acaattacaa gaccacaccc 1260
cctgtcctgg actctgatgg gagtttcgct ctggtgtcaa agctgaccgt cgataaaagc 1320
cgggtggcagc agggcaatgt gtttagctgc tccgtcatgc acgaagccct gcacaatcac 1380
tacacacaga agtcctgag cctgagccct ggc 1413

FP1804 Sequence Listing.TXT

<210> 207
 <211> 471
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of C3E-7034 Fab HC

<400> 207

Met Arg Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Leu Ala
 1 5 10 15

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

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
 35 40 45

Ser Gly Val Thr Phe Asn Tyr Tyr Gly Met Ser Trp Ile Arg Gln Ala
 50 55 60

Pro Gly Lys Gly Leu Glu Trp Val Ala Ser Ile Thr Asn Ser Gly Gly
 65 70 75 80

Arg Ile Tyr Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
 85 90 95

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

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Leu Asp Gly Arg Asp Gly Trp
 115 120 125

Val Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser
 130 135 140

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
 145 150 155 160

Ser Gly Gly Thr Ala Trp Leu Gly Cys Asp Val Thr Asp Tyr Phe Pro
 165 170 175

Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
 180 185 190

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
 195 200 205

Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
 210 215 220

FP1804 Sequence Listing.TXT

Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val
 225 230 235 240
 Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
 245 250 255
 Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
 260 265 270
 Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
 275 280 285
 Val Ser Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
 290 295 300
 Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
 305 310 315 320
 Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
 325 330 335
 Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
 340 345 350
 Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
 355 360 365
 Arg Glu Pro Gln Val Tyr Val Tyr Pro Pro Ser Arg Asp Glu Leu Thr
 370 375 380
 Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
 385 390 395 400
 Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
 405 410 415
 Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Ala Leu Val
 420 425 430
 Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
 435 440 445
 Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
 450 455 460
 Ser Leu Ser Leu Ser Pro Gly
 465 470

<210> 208
 <211> 714
 <212> DNA
 <213> Artificial Sequence

FP1804 Sequence Listing.TXT

<220>

<223> nucleotide sequence of C3E-7034 Fab LC

<400> 208

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atgcggccta cctgggcctg gtggctgttc ctggtgctgc tgctggccct gtgggcccga      60
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gtgacaatct cctgcaagcg gaacacaggc aatatcggct ctaactacgt gaattggtat      180
cagcagcacg agggcagctc cccaaccaca atcatctacc gggacgataa gcggcccgcag      240
ggcgtgtctg ataggttcag cggctccatc gaccgctcta gcaagtctgc cagcctgacc      300
atcagcaatc tgaagacaga ggacgaggcc gattactttt gtcagtccta ttctcttggc      360
ttcatctttg gaggaggaac caagctgaca gtgctgggcc agcccaaggc ggcgcccagc      420
gtgactctgt ttccaccag ctccgagcag ctgcaggcca ataaggctag actggtctgt      480
ctgatttccg acttctaccc cggggctgtg acagtcgcat ggaaggccga ttctagtcct      540
gtgaaagcag gagtcgagac cacaactcca tcaaagcaga gcaacaacaa gtacgcagcc      600
tcaagctatc tgtctctgac acctgaacag tggaaaagcc accggtctta tagttgtcag      660
gtgactcacg agggctcaac agtggaaaag acagtcgcac ccgcagaatg ctca          714

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<210> 209

<211> 238

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of C3E-7034 Fab LC

<400> 209

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Met Arg Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Ala
1           5           10          15

Leu Trp Ala Pro Ala Arg Gly Asn Phe Met Leu Thr Gln Pro His Ser
          20          25          30

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

Thr Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln His Glu
          50          55          60

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

Gly Val Ser Asp Arg Phe Ser Gly Ser Ile Asp Arg Ser Ser Lys Ser
          85          90          95

Ala Ser Leu Thr Ile Ser Asn Leu Lys Thr Glu Asp Glu Ala Asp Tyr
          100         105         110

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FP1804 Sequence Listing.TXT

Phe Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys
115 120 125

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

Pro Pro Ser Ser Glu Gln Leu Gln Ala Asn Lys Ala Arg Leu Val Cys
145 150 155 160

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

Asp Ser Ser Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys
180 185 190

Gln Ser Asn Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro
195 200 205

Glu Gln Trp Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu
210 215 220

Gly Ser Thr Val Glu Lys Thr Val Ala Pro Ala Glu Cys Ser
225 230 235

<210> 210
<211> 1413
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of C3E-7036 Fab HC

<400> 210
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gcccggggcg gcgaggtgca gctggtggag agcggcgggcg gcctggtgca gcccggcggc 120
tctctgcggc tgagctgcgc cgcctccggc gtgacattca actactatgg catgtcctgg 180
atcagacagg ccccaggcaa gggcctggag tgggtggcct ctatcaccaa tagcggcggc 240
aggatctact atcccgactc cgtgaagggc cggttttacaa tctctagaga gaacacccag 300
aagacactgt acctgcagat gaacagcctg cggggccgagg ataccgccgt gtactattgt 360
acactggacg gcagagacgg atgggtggca tattggggac agggcaccct ggtgacagtg 420
agctccgcta gcactaaagg accaagcgtg tttccactgg ctccatcatc caaaagcaca 480
agcggcgggga ctgcctggct gggctgtaag gtgaaggact acttccccga gcctgtgacc 540
gtgtcctgga actctggggc cctgaccagc ggagtgcaca catttccagc cgtgctgcag 600
agctccggcc tgtatagcct gtctagcgtg gtgacagtgc cctcctcaag cctgggcact 660
cagacctata tttgtaatgt caaccataaa ctttccaaca ctaaagtcga caagaaagtg 720
gagcccaaga gctgtgataa aactcatacc tgcccacctt gtccggcgcc agaggctgca 780
ggaggaccaa gcgtgttcct gtttccaccc aagcctaaag acacactgat gatttcccga 840

FP1804 Sequence Listing.TXT

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acccccgaag tcacatgcgt ggtcgtgtct gtgagtcacg aggaccctga agtcaagttc      900
aactgggtacg tggatggcgt cgaggtgcat aatgccaaga ctaaacctag ggaggaacag      960
tacaactcaa cctatcgcgt cgtgagcgtc ctgacagtgc tgcaccagga ttggctgaac     1020
ggcaaagaat ataagtgcaa agtgagcaat aaggccctgc ccgctcctat cgagaaaacc     1080
atttccaagg ctaaagggca gcctcgcgaa ccacaggtct acgtctaccc cccatcaaga     1140
gatgaactga caaaaaatca ggtctctctg acatgcctgg tcaaaggatt ctacccttcc     1200
gacatcgccg tggagtggga aagtaacggc cagcccgaga acaattacaa gaccacaccc     1260
cctgtcctgg actctgatgg gagtttcgct ctgggtgtcaa agctgaccgt cgataaaaagc     1320
cgggtggcagc agggcaatgt gtttagctgc tccgtcatgc acgaagccct gcacaatcac     1380
tacacacaga agtccctgag cctgagccct ggc                                     1413

```

```

<210> 211
<211> 471
<212> PRT
<213> Artificial Sequence

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<220>
<223> amino acid sequence of C3E-7036 Fab HC
<400> 211

```

```

Met Arg Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Leu Ala
 1           5           10           15

```

```

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

```

```

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
      35           40           45

```

```

Ser Gly Val Thr Phe Asn Tyr Tyr Gly Met Ser Trp Ile Arg Gln Ala
 50           55           60

```

```

Pro Gly Lys Gly Leu Glu Trp Val Ala Ser Ile Thr Asn Ser Gly Gly
65           70           75           80

```

```

Arg Ile Tyr Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
          85           90           95

```

```

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

```

```

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Leu Asp Gly Arg Asp Gly Trp
      115           120           125

```

```

Val Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser
      130           135           140

```

FP1804 Sequence Listing.TXT

Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr
145 150 155 160

Ser Gly Gly Thr Ala Trp Leu Gly Cys Lys Val Lys Asp Tyr Phe Pro
165 170 175

Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
180 185 190

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
195 200 205

Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile
210 215 220

Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val
225 230 235 240

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
245 250 255

Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
260 265 270

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
275 280 285

Val Ser Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
290 295 300

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
305 310 315 320

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
325 330 335

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
340 345 350

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
355 360 365

Arg Glu Pro Gln Val Tyr Val Tyr Pro Pro Ser Arg Asp Glu Leu Thr
370 375 380

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

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
405 410 415

FP1804 Sequence Listing.TXT

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Ala Leu Val
420 425 430

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
435 440 445

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
450 455 460

Ser Leu Ser Leu Ser Pro Gly
465 470

<210> 212
<211> 708
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of C3E-7036 Fab LC

<400> 212
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gccaggggca actttatgct gaccagcct agctccgtga gcggagtgcc aggacagagg 120
gtgacaatct cctgcaccgg caacacaggc aatatcggct ctaactacgt gaattggtat 180
cagcagctgc ccggcacagc ccctaagctg ctgatctacc gggacgataa gcggcccagc 240
ggagtgccag acagggttctc cggctctaag agcggcacct ccgcctctct ggccatcaca 300
ggctttcagg ccgaggacga ggccgattac tattgtcagt cctattctag cggcttcac 360
tttggaggag gaaccaagct gacagtgtg ggccagccca aggcggcgcc cagtgtcaca 420
ctgtttcccc ctagctccga ggaactgcag gctaaccacg caacactgga ctgtctgac 480
agcgacttct accctggagc tgtgactgtc gcctggaagg ctgattctag tccagtgaag 540
gcaggcgtcg agaccacaac tccctctaag cagagtaaca acaagtacgc agcctcaagc 600
tatctgtcac tgaccccaga acagtggaag agccaccgga gctattcctg ccaggtcact 660
cacgaaggct ccactgtcga gaaaaccgtc gctcccaccg aatgttca 708

<210> 213
<211> 236
<212> PRT
<213> Artificial Sequence

<220>
<223> amino acid sequence of C3E-7036 Fab LC

<400> 213

Met Arg Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Leu Ala
1 5 10 15

Leu Trp Ala Pro Ala Arg Gly Asn Phe Met Leu Thr Gln Pro Ser Ser
20 25 30

FP1804 Sequence Listing.TXT

Val Ser Gly Val Pro Gly Gln Arg Val Thr Ile Ser Cys Thr Gly Asn
35 40 45

Thr Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln Leu Pro
50 55 60

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

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

Leu Ala Ile Thr Gly Phe Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys
100 105 110

Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys Leu Thr
115 120 125

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

Ser Ser Glu Glu Leu Gln Ala Asn Thr Ala Thr Leu Asp Cys Leu Ile
145 150 155 160

Ser Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser
165 170 175

Ser Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser
180 185 190

Asn Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln
195 200 205

Trp Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser
210 215 220

Thr Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
225 230 235

<210> 214
<211> 1425
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of h2B1 Fab HC_3

<400> 214
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gcccggggcc aggtgcagct ggtggagtcc ggcggcggcc tggtgaagcc cagccagacc 120
ctgtccctga cctgcacatt cagcggcttt tccctgaaca catacgatat gggagtggga 180
tggatcagac agccacctgg caagggcctg gagtggatcg gcaacatctg gtgggacgat 240

FP1804 Sequence Listing.TXT

gacaagtact	ataatccctc	tctgaagagc	agagtgacca	tctctaagga	tacaagcaac	300
aatcaggcct	ccctgaagct	gagctccgtg	accgccgccg	acacagccgt	gtactattgc	360
gccaggatcg	agacagtgcg	ggtgagccgg	aagggattcg	cacactgggg	acagggcacc	420
ctggtgacag	tgtctagcgc	tagcacaaag	ggacctagcg	tgttcccact	ggcccccttc	480
tctaagtcca	cctctggagg	aacagccgcc	ctgggctgtc	tgggtgaagga	ctatttcctt	540
gagccagtga	ccgtgtcctg	gaactctggg	gccctgacca	gcggagtgca	cacatttcct	600
gccgtgctgc	agagctccgg	cctgtacagc	ctgtctagcg	tgggtgaccgt	gccatcctct	660
agcctgggca	cccagacata	tatctgcaac	gtgaatcaca	agccaagcaa	tacaaaggct	720
gacaagagag	tggagcccaa	gtcctgtgac	aagaccaca	catgcccacc	ctgtccggcg	780
ccagaggctg	caggaggacc	aagcgtgttc	ctgtttccac	ccaagcctaa	agacacactg	840
atgatttccc	gaacccccga	agtcacatgc	gtggctcgtgt	ctgtgagtca	cgaggaccct	900
gaagtcaagt	tcaactggta	cgtggatggc	gtcagaggtc	ataatgccaa	gactaaacct	960
agggaggaac	agtacaactc	aacctatcgc	gtcgtgagcg	tcctgacagt	gctgcaccag	1020
gattggctga	acggcaaaga	atataagtgc	aaagtgagca	ataaggccct	gcccgtcctt	1080
atcgagaaaa	ccattttcaa	ggctaaaggg	cagcctcgcg	aaccacaggt	ctacgtgctg	1140
ccccctagcc	gcgacgaact	gactaaaaat	caggtctctc	tgctgtgtct	ggtcaaagga	1200
ttctaccctt	ccgacatcgc	cgtggagtgg	gaaagtaacg	gccagcccga	gaacaattac	1260
ctgacctggc	cccctgtgct	ggactctgat	gggagtttct	ttctgtattc	aaagctgaca	1320
gtcgataaaa	gccggtggca	gcagggcaat	gtgttcagct	gctccgtcat	gcacgaagca	1380
ctgcacaacc	attacactca	gaagtccctg	tcctgtcac	ctggc		1425

<210> 215

<211> 475

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of h2B1 Fab HC_3

<400> 215

Met	Arg	Pro	Thr	Trp	Ala	Trp	Trp	Leu	Phe	Leu	Val	Leu	Leu	Ala
1				5				10				15		

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

Gly	Leu	Val	Lys	Pro	Ser	Gln	Thr	Leu	Ser	Leu	Thr	Cys	Thr	Phe	Ser
		35				40					45				

Gly	Phe	Ser	Leu	Asn	Thr	Tyr	Asp	Met	Gly	Val	Gly	Trp	Ile	Arg	Gln
50						55					60				

FP1804 Sequence Listing.TXT

Pro Pro Gly Lys Gly Leu Glu Trp Ile Gly Asn Ile Trp Trp Asp Asp
65 70 75 80

Asp Lys Tyr Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Lys
85 90 95

Asp Thr Ser Asn Asn Gln Ala Ser Leu Lys Leu Ser Ser Val Thr Ala
100 105 110

Ala Asp Thr Ala Val Tyr Tyr Cys Ala Arg Ile Glu Thr Val Arg Val
115 120 125

Ser Arg Lys Gly Phe Ala His Trp Gly Gln Gly Thr Leu Val Thr Val
130 135 140

Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser
145 150 155 160

Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys
165 170 175

Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu
180 185 190

Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu
195 200 205

Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr
210 215 220

Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val
225 230 235 240

Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro
245 250 255

Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
260 265 270

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

Thr Cys Val Val Val Ser Val Ser His Glu Asp Pro Glu Val Lys Phe
290 295 300

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
305 310 315 320

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
325 330 335

FP1804 Sequence Listing.TXT

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
340 345 350

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
355 360 365

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Val Leu Pro Pro Ser Arg
370 375 380

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Leu Cys Leu Val Lys Gly
385 390 395 400

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
405 410 415

Glu Asn Asn Tyr Leu Thr Trp Pro Pro Val Leu Asp Ser Asp Gly Ser
420 425 430

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
435 440 445

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
450 455 460

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
465 470 475

<210> 216
<211> 711
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide_sequence_of_h2B1_Fab_LC_3

<400> 216
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gcccgggggg ccaccagaat gacacagtct ccaagctcct tttccgcctc tacaggcgac 120
agagtgacca tcacatgcaa ggccagccag tccgtgggca tcaacgtgga ttggtaccag 180
cagaagcctg gcaagtcccc caagctgctg atctatgggg ccagcaatag gcacaccggc 240
gtgccttctc gcttctctgg cagcggcttc ggcagggact ttaccctgac aatctctagc 300
ctgcagagcg aggatttcgc cacctactat tgtctgcagc acggctccat cccccctacc 360
tttggcggag gcacaaagggt ggagatcaag agaacagtgg cggcgcccag tgtcttcatt 420
tttcccccta gcgacgaaca gctgaagtct gggacagcca gtgtgggtctg tctgctgaac 480
aacttctacc ctagagaggc taaagtgcag tggaaggtcg ataacgcact gcagtccgga 540
aattctcagg agagtgtgac tgaacaggac tcaaaagata gcacctattc cctgtcaagc 600
acactgactc tgagcaaggc cgactacgag aagcataaag tgtatgcttg tgaagtcacc 660
caccaggggc tgagttcacc agtcacaaaa tcattcaaca gaggggagtg c 711

FP1804 Sequence Listing.TXT

<210> 217
 <211> 237
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of h2B1 Fab LC_3

<400> 217

Met Arg Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Leu Ala
 1 5 10 15

Leu Trp Ala Pro Ala Arg Gly Ala Thr Arg Met Thr Gln Ser Pro Ser
 20 25 30

Ser Phe Ser Ala Ser Thr Gly Asp Arg Val Thr Ile Thr Cys Lys Ala
 35 40 45

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

Lys Ser Pro Lys Leu Leu Ile Tyr Gly Ala Ser Asn Arg His Thr Gly
 65 70 75 80

Val Pro Ser Arg Phe Ser Gly Ser Gly Phe Gly Arg Asp Phe Thr Leu
 85 90 95

Thr Ile Ser Ser Leu Gln Ser Glu Asp Phe Ala Thr Tyr Tyr Cys Leu
 100 105 110

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

Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser
 130 135 140

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

Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala
 165 170 175

Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys
 180 185 190

Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp
 195 200 205

Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu
 210 215 220

FP1804 Sequence Listing.TXT

Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230 235

<210> 218
<211> 1497
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of C3E-7034 scFv Fc

<400> 218
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gccccggggcg gcgaggtgca gctgggtggag tctggcgggcg gcctgggtgca gcccgggcggc 120
agcctgcggc tgtcctgcgc cgcctctggc gtgaccttca actactatgg catgagctgg 180
atcagacagg cccccggcaa gggcctggag tgggtggcca gcatcaccaa ttccggcggc 240
aggatctact atcctgactc tgtgaagggc aggtttacaa tcagccgcga gaacacccag 300
aagacactgt acctgcagat gaacagcctg cgggccgagg ataccgccgt gtactattgc 360
aactggacg gcagagacgg atgggtggca tattggggac agggcacctt ggtgacagtg 420
agctccggcg gcggcggtc tggaggagga ggcagcggcg gaggaggctc caactttatg 480
ctgaccagc cccactctgt gagcgagtcc cctggcaaga ccgtgacaat ctctgtaag 540
agaaacacag gcaatatcgg ctctaactac gtgaattggt atcagcagca cgagggtctt 600
agcccaacca caatcatcta ccgggacgat aagcggcccc acggcgtagg cgatcggttc 660
tctggcagca tcgacagatc ctctaagtcc gcctctctga ccatcagcaa tctgaagaca 720
gaggacgagg ccgattactt ttgtcagtcc tatagctccg gcttcatctt tggcgggcggc 780
accaagctga cagtgtctgg gcggcagcct aaaagtagcg ataaaacca tacctgcccc 840
ccctgccccg cgccagaggc tgcaggagga ccaagcgtgt tcctgtttcc acccaagcct 900
aaagacacac tgatgatttc ccgaaccccc gaagtcacat gcgtgggtcgt gtctgtgagt 960
cacgaggacc ctgaagtcaa gttcaactgg tacgtggatg gcgtcgaggt gcataatgcc 1020
aagactaaac ctagggagga acagtacaac tcaacctatc gcgtcgtgag cgtcctgaca 1080
gtgctgcacc aggattggct gaacggcaaa gaatataagt gcaaagtgag caataaggcc 1140
ctgcccgtc ctatcgagaa aaccatttcc aaggctaaag ggcagcctcg cgaaccacag 1200
gtctacgtct acccccatc aagagatgaa ctgacaaaaa atcaggtctc tctgacatgc 1260
ctggtcaaag gattctaccc ttccgacatc gccgtggagt gggaaagtaa cggccagccc 1320
gagaacaatt acaagaccac accccctgtc ctggactctg atgggagttt cgctctgggtg 1380
tcaaagctga ccgtcgataa aagccggtgg cagcagggca atgtgtttag ctgctccgtc 1440
atgcacgaag ccctgcacaa tcactacaca cagaagtccc tgagcctgag ccctggc 1497

<210> 219
<211> 499
<212> PRT
<213> Artificial Sequence

FP1804 Sequence Listing.TXT

<220>

<223> amino acid sequence of C3E-7034 scFv Fc

<400> 219

Met Arg Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Leu Ala
1 5 10 15

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

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
35 40 45

Ser Gly Val Thr Phe Asn Tyr Tyr Gly Met Ser Trp Ile Arg Gln Ala
50 55 60

Pro Gly Lys Gly Leu Glu Trp Val Ala Ser Ile Thr Asn Ser Gly Gly
65 70 75 80

Arg Ile Tyr Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
85 90 95

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

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Leu Asp Gly Arg Asp Gly Trp
115 120 125

Val Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
130 135 140

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Asn Phe Met
145 150 155 160

Leu Thr Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys Thr Val Thr
165 170 175

Ile Ser Cys Lys Arg Asn Thr Gly Asn Ile Gly Ser Asn Tyr Val Asn
180 185 190

Trp Tyr Gln Gln His Glu Gly Ser Ser Pro Thr Thr Ile Ile Tyr Arg
195 200 205

Asp Asp Lys Arg Pro Asp Gly Val Ser Asp Arg Phe Ser Gly Ser Ile
210 215 220

Asp Arg Ser Ser Lys Ser Ala Ser Leu Thr Ile Ser Asn Leu Lys Thr
225 230 235 240

Glu Asp Glu Ala Asp Tyr Phe Cys Gln Ser Tyr Ser Ser Gly Phe Ile
245 250 255

FP1804 Sequence Listing.TXT

Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Ala Ala Glu Pro Lys Ser
 260 265 270
 Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala
 275 280 285
 Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
 290 295 300
 Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Ser Val Ser
 305 310 315 320
 His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
 325 330 335
 Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
 340 345 350
 Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
 355 360 365
 Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
 370 375 380
 Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
 385 390 395 400
 Val Tyr Val Tyr Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val
 405 410 415
 Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
 420 425 430
 Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
 435 440 445
 Pro Val Leu Asp Ser Asp Gly Ser Phe Ala Leu Val Ser Lys Leu Thr
 450 455 460
 Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
 465 470 475 480
 Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
 485 490 495
 Ser Pro Gly

<210> 220
 <211> 1491

FP1804 Sequence Listing.TXT

<212> DNA

<213> Artificial Sequence

<220>

<223> nucleotide sequence of C3E-7036 scFv Fc

<400> 220

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tctctgaggc tgagctgcgc agcctccggc gtgacattca actactatgg catgtcctgg      180
atcagacagg ccccaggcaa gggcctggag tgggtggcct ctatcaccaa tagcggcggc      240
agaatctact atcccgactc cgtgaagggc aggtttacaa tcagccggga gaacacccag      300
aagacactgt acctgcagat gaatagcctg cgggccgagg ataccgccgt gtactattgc      360
acactggacg gcagagatgg atgggtggca tattggggac agggcaccct ggtgacagtg      420
agctccggag gaggaggctc cggcggcgga ggctctggcg gcggcggcag caactttatg      480
ctgaccacgc cttctagcgt gagcggagtg ccaggacaga gggtgacaat ctctgtacc      540
ggcaacacag gcaatatcgg ctctaactac gtgaattggg atcagcagct gccaggaacc      600
gcccctaagc tgctgatcta ccgggacgat aagcggccct ctggagtgcc agaccggttc      660
agcggctcca agtctggcac cagcgcctcc ctggccatca caggatttca ggccgaggac      720
gaggccgatt actattgtca gtcctattcc tctggcttca tctttggcgg cggcaccaag      780
ctgacagtgc tggcggccga gcctaaaagt agcgataaaa ccataacctg cccccctgc      840
ccggcgccag aggctgcagg aggaccaagc gtgttcctgt ttccacccaa gcctaaagac      900
acactgatga tttcccgaac ccccgaaagc acatgcgtgg tcgtgtctgt gagtacagag      960
gaccctgaag tcaagttcaa ctggtacgtg gatggcgctg aggtgcataa tgccaagact     1020
aaacctaggg aggaacagta caactcaacc tatcgcgctg tgagcgtcct gacagtgtctg     1080
caccaggatt ggctgaacgg caaagaatat aagtgcaaag tgagcaataa ggccctgccc     1140
gctcctatcg agaaaaccat ttccaaggct aaagggcagc ctcgcgaacc acaggtctac     1200
gtctaccccc catcaagaga tgaactgaca aaaaatcagg tctctctgac atgcctggtc     1260
aaaggattct acccttccga catcgccgtg gagtgggaaa gtaacggcca gcccgagaac     1320
aattacaaga ccacaccccc tgtcctggac tctgatggga gtttcgctct ggtgtcaaag     1380
ctgaccgtcg ataaaagccg gtggcagcag ggcaatgtgt ttagctgctc cgtcatgcac     1440
gaagccctgc acaatcacta cacacagaag tccctgagcc tgagccctgg c      1491

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<210> 221

<211> 497

<212> PRT

<213> Artificial Sequence

<220>

<223> amino acid sequence of C3E-7036 scFv Fc

<400> 221

FP1804 Sequence Listing.TXT

Met Arg Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Ala
1 5 10 15

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

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
35 40 45

Ser Gly Val Thr Phe Asn Tyr Tyr Gly Met Ser Trp Ile Arg Gln Ala
50 55 60

Pro Gly Lys Gly Leu Glu Trp Val Ala Ser Ile Thr Asn Ser Gly Gly
65 70 75 80

Arg Ile Tyr Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
85 90 95

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

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Leu Asp Gly Arg Asp Gly Trp
115 120 125

Val Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
130 135 140

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asn Phe Met
145 150 155 160

Leu Thr Gln Pro Ser Ser Val Ser Gly Val Pro Gly Gln Arg Val Thr
165 170 175

Ile Ser Cys Thr Gly Asn Thr Gly Asn Ile Gly Ser Asn Tyr Val Asn
180 185 190

Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr Arg
195 200 205

Asp Asp Lys Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys
210 215 220

Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Phe Gln Ala Glu Asp
225 230 235 240

Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly
245 250 255

Gly Gly Thr Lys Leu Thr Val Leu Ala Ala Glu Pro Lys Ser Ser Asp
260 265 270

FP1804 Sequence Listing.TXT

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly
275 280 285

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
290 295 300

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Ser Val Ser His Glu
305 310 315 320

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
325 330 335

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
340 345 350

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
355 360 365

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
370 375 380

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
385 390 395 400

Val Tyr Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
405 410 415

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
420 425 430

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
435 440 445

Leu Asp Ser Asp Gly Ser Phe Ala Leu Val Ser Lys Leu Thr Val Asp
450 455 460

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
465 470 475 480

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
485 490 495

Gly

<210> 222
<211> 1512
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of h2B1 scFv Fc

FP1804 Sequence Listing.TXT

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<400> 222
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gccccggggg ccacccgcat gacacagtcc cctagctcct tttctgccag cacaggcgat 120
agagtgacca tcacatgcaa ggcctcccag tctgtgggca tcaacgtgga ctggtaccag 180
cagaagcctg gcaagagccc aaagctgctg atctatgggg ccagcaatag gcacaccgga 240
gtgccatcta gattcagcgg ctccggcttc ggcagagact tcaccctgac aatctctagc 300
ctgcagagcg aggacttcgc cacatactat tgcctgcagc acggctccat cccccctacc 360
tttggcggag gcacaaaggt ggagatcaag ggaggaggag gctccggcgg aggaggctct 420
ggcggcgggc gcagcggcgg cggccagggtg cagctggtgg agtccggagg aggcctggtg 480
aagccaagcc agaccctgtc cctgacctgt acattctctg gctttagcct gaacacatac 540
gatatgggag tgggatggat caggcagcca ccaggcaagg gcctggagtg gatcggcaac 600
atctggtggg acgatgacaa gtactataat ccctccctga agtctcgcgt gaccatctct 660
aaggatacaa gcaacaatca ggcctctctg aagctgtcct ctgtgaccgc cgccgacaca 720
gccgtgtact attgtgcaag gatcgagaca gtgcgggtga gccggaaggg atttgcacac 780
tggggacagg gcaccctggt gacagtgagc tctgcggccg agcctaaaag tagcgataaa 840
acccatacct gccccccctg cccggcgcca gaggtgagc gaggaccaag cgtgttcctg 900
tttccacca agcctaaaga cacactgatg atttcccga ccccgaagt cacatgcgtg 960
gtcgtgtctg tgagtcacga ggaccctgaa gtcaagttca actggtacgt ggatggcgctc 1020
gaggtgcata atgccaagac taaacctagg gaggaacagt acaactcaac ctatcgcgctc 1080
gtgagcgtcc tgacagtgct gcaccaggat tggctgaacg gcaaagaata taagtgcaaa 1140
gtgagcaata aggccctgcc cgctcctatc gagaaaacca tttccaaggc taaagggcag 1200
cctcgcgaac cacaggctca cgtgctgccc cctagccgag acgaactgac taaaaatcag 1260
gtctctctgc tgtgtctggt caaaggattc tacccttccg acatcgccgt ggagtgggaa 1320
agtaacggcc agcccagaa caattacctg acctggcccc ctgtgctgga ctctgatggg 1380
agtttctttc tgtattcaaa gctgacagtc gataaaagcc ggtggcagca gggcaatgtg 1440
ttcagctgct ccgtcatgca cgaagcactg cacaaccatt acactcagaa gtccctgtcc 1500
ctgtcacctg gc 1512

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<210> 223
<211> 504
<212> PRT
<213> Artificial Sequence

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<220>
<223> amino_acid_sequence_of_h2B1_scFv_Fc

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<400> 223

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Met Arg Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Ala
1          5          10          15

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FP1804 Sequence Listing.TXT

Leu Trp Ala Pro Ala Arg Gly Ala Thr Arg Met Thr Gln Ser Pro Ser
20 25 30

Ser Phe Ser Ala Ser Thr Gly Asp Arg Val Thr Ile Thr Cys Lys Ala
35 40 45

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

Lys Ser Pro Lys Leu Leu Ile Tyr Gly Ala Ser Asn Arg His Thr Gly
65 70 75 80

Val Pro Ser Arg Phe Ser Gly Ser Gly Phe Gly Arg Asp Phe Thr Leu
85 90 95

Thr Ile Ser Ser Leu Gln Ser Glu Asp Phe Ala Thr Tyr Tyr Cys Leu
100 105 110

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

Ile Lys Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
130 135 140

Ser Gly Gly Gly Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
145 150 155 160

Lys Pro Ser Gln Thr Leu Ser Leu Thr Cys Thr Phe Ser Gly Phe Ser
165 170 175

Leu Asn Thr Tyr Asp Met Gly Val Gly Trp Ile Arg Gln Pro Pro Gly
180 185 190

Lys Gly Leu Glu Trp Ile Gly Asn Ile Trp Trp Asp Asp Lys Tyr
195 200 205

Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Lys Asp Thr Ser
210 215 220

Asn Asn Gln Ala Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr
225 230 235 240

Ala Val Tyr Tyr Cys Ala Arg Ile Glu Thr Val Arg Val Ser Arg Lys
245 250 255

Gly Phe Ala His Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala
260 265 270

Ala Glu Pro Lys Ser Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro
275 280 285

FP1804 Sequence Listing.TXT

Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
290 295 300

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
305 310 315 320

Val Val Ser Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
325 330 335

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
340 345 350

Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
355 360 365

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
370 375 380

Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
385 390 395 400

Pro Arg Glu Pro Gln Val Tyr Val Leu Pro Pro Ser Arg Asp Glu Leu
405 410 415

Thr Lys Asn Gln Val Ser Leu Leu Cys Leu Val Lys Gly Phe Tyr Pro
420 425 430

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
435 440 445

Tyr Leu Thr Trp Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
450 455 460

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
465 470 475 480

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
485 490 495

Lys Ser Leu Ser Leu Ser Pro Gly
500

<210> 224
<211> 1491
<212> DNA
<213> Artificial sequence

<220>
<223> nucleotide sequence of C3E-8015

<400> 224
atgcggccca cctgggcatg gtggctgttc ctggtgctgc tgctggccct gtgggcccct 60
gccaggggcg gagaagtgc gctggtggaa tccggggggg gcctggtgca gcctgggggg 120
Page 162

FP1804 Sequence Listing.TXT

```

agcctgagac tgagttgtgc cgcctctggg gtgacattta actactatgg catgtcttgg      180
atccgccagg cacctggaaa gggcctggag tgggtggcca gcatcactag gtccggcgagg      240
cgaatctact atcccgacag cgtcaagggc aggttcacaa tttcccgcga gaacacacag      300
aaaactctgt acctgcagat gaatagcctg agagccgaag atacagctgt gtactattgc      360
actctggacg gcaggggatg gtgggtcgcc tattggggggc aggggaaccct ggtgacagtc      420
agctccggag gaggaggatc tggcggagga ggcagtgggg gaggcggggtc aaactttatg      480
ctcactcagc cgtcctctgt ttctggcgta cctggccaac gggtgaccat tagctgtacg      540
ggtaataaccg ggaatatcgg gtctaactac gtgaactggt atcagcagct tccagggaca      600
gctcccaagt tgctgatcta tcgcgacgac aaaagaccct caggggtccc tgaccgattt      660
agtggcagca aaagcgggtac ttccgcttcc ctggcgataa ccggccttca ggccgaagat      720
gaggcagact actattgccg gtcattattcc agcggcttca tcttcggagg cggaactaag      780
ctgacagtgt tggcgggccg gcctaaaagt agcgataaaa cccatacctg cccccctgc      840
ccggcgccag aggctgcagg aggaccaagc gtgttcctgt ttccacccaa gcctaaagac      900
acactgatga tttcccgaac ccccgaagtc acatgcgtgg tcgtgtctgt gagtcacgag      960
gaccctgaag tcaagttcaa ctggtacgtg gatggcgctg aggtgcataa tgccaagact     1020
aaacctaggg aggaacagta caactcaacc tatcgcgctg tgagcgtcct gacagtgtg      1080
caccaggatt ggctgaacgg caaagaatat aagtgcaaag tgagcaataa ggccctgccc     1140
gctcctatcg agaaaaccat ttccaaggct aaagggcagc ctgcggaacc acaggtctac     1200
gtctaccccc catcaagaga tgaactgaca aaaaatcagg tctctctgac atgcctggtc     1260
aaaggattct acccttccga catcgccgtg gagtgggaaa gtaacggcca gcccgagaac     1320
aattacaaga ccacaccccc tgtcctggac tctgatggga gtttcgctct ggtgtcaaag     1380
ctgaccgtcg ataaaagccg gtggcagcag ggcaatgtgt ttagctgctc cgtcatgcac     1440
gaagccctgc acaatcacta cacacagaag tccttgagcc tgagccctgg c              1491

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<210> 225
 <211> 497
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of C3E-8015

<400> 225

Met Arg Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Leu Ala
 1 5 10 15

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

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
 35 40 45

FP1804 Sequence Listing.TXT

Ser Gly Val Thr Phe Asn Tyr Tyr Gly Met Ser Trp Ile Arg Gln Ala
50 55 60

Pro Gly Lys Gly Leu Glu Trp Val Ala Ser Ile Thr Arg Ser Gly Gly
65 70 75 80

Arg Ile Tyr Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
85 90 95

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

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Leu Asp Gly Arg Asp Gly Trp
115 120 125

Val Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
130 135 140

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Asn Phe Met
145 150 155 160

Leu Thr Gln Pro Ser Ser Val Ser Gly Val Pro Gly Gln Arg Val Thr
165 170 175

Ile Ser Cys Thr Gly Asn Thr Gly Asn Ile Gly Ser Asn Tyr Val Asn
180 185 190

Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr Arg
195 200 205

Asp Asp Lys Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys
210 215 220

Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Phe Gln Ala Glu Asp
225 230 235 240

Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly
245 250 255

Gly Gly Thr Lys Leu Thr Val Leu Ala Ala Glu Pro Lys Ser Ser Asp
260 265 270

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly
275 280 285

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
290 295 300

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Ser Val Ser His Glu
305 310 315 320

FP1804 Sequence Listing.TXT

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
325 330 335

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
340 345 350

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
355 360 365

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
370 375 380

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
385 390 395 400

Val Tyr Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
405 410 415

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
420 425 430

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
435 440 445

Leu Asp Ser Asp Gly Ser Phe Ala Leu Val Ser Lys Leu Thr Val Asp
450 455 460

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
465 470 475 480

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
485 490 495

Gly

<210> 226
<211> 1497
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of C3E-8017

<400> 226
atgcgcccta cctgggcctg gtggctgttc ctggtgctgc tgctggccct gtgggccccca 60
gcccggggcg gagaagtgca gctggtggaa tccggggggg gcctggtgca gcctgggggg 120
agcctgagac tgagttgtgc cgcctctggg gtgacattta actactatgg catgtcttgg 180
atccgccagg cacctggaaa gggcctggag tgggtggcca gcatcactag gtccggcggg 240
cgaatctact atcccgacag cgtcaagggc aggttcacaa tttcccgcga gaacacacag 300

FP1804 Sequence Listing.TXT

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aaaactctgt acctgcagat gaatagcctg agagccgaag atacagctgt gtactattgc      360
actctggacg gcaggggatgg gtgggtcgcc tattggggggc agggaaccct ggtgacagtc      420
agctccggag gaggaggatc tggcggagga ggcagtgggg gaggcggggtc aaactttatg      480
ctgaccagc cccacagtgt gtcagagagc cctggcaaga ctgtcaccat ctcttgtaaa      540
aggaacaccg gaaatattgg cagtaactac gtgaattggt atcagcagca tgaaggggtct      600
agtccaacca caatcatcta ccggaacgat aagagacccg acgggggtgtc cgatcgattc      660
tccggatcta tcgaccggtc aagcaagagt gcttcactga ccattagcaa tctgaaaaca      720
gaggacgaag cagattactt ttgccagtcc tattcctctg gcttcactct tggaggcggg      780
actaaactga ccgtgctggc ggccgagcct aaaagtagcg ataaaacca tacctgcccc      840
ccctgccccg cgccagaggc tgcaggagga ccaagcgtgt tcctgtttcc acccaagcct      900
aaagacacac tgatgatttc ccgaaccccc gaagtcacat gcgtgggtcgt gtctgtgagt      960
cacgaggacc ctgaagtcaa gttcaactgg tacgtggatg gcgtcgaggt gcataatgcc     1020
aagactaaac ctagggagga acagtacaac tcaacctatc gcgtcgtgag cgtcctgaca     1080
gtgctgcacc aggattggct gaacggcaaa gaatataagt gcaaagtgag caataaggcc     1140
ctgcccgtc ctatcgagaa aaccatttcc aaggctaaag ggcagcctcg cgaaccacag     1200
gtctacgtct acccccatc aagagatgaa ctgacaaaaa atcaggtctc tctgacatgc     1260
ctgggtcaaag gattctaccc ttccgacatc gccgtggagt gggaaagtaa cggccagccc     1320
gagaacaatt acaagaccac accccctgtc ctggactctg atgggagttt cgctctgggtg     1380
tcaaagctga ccgtcgataa aagccggtgg cagcagggca atgtgtttag ctgctccgtc     1440
atgcacgaag ccctgcacaa tcactacaca cagaagtccc tgagcctgag ccctggc      1497

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<210> 227
 <211> 499
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of C3E-8017

<400> 227

Met Arg Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Leu Ala
 1 5 10 15

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

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
 35 40 45

Ser Gly Val Thr Phe Asn Tyr Tyr Gly Met Ser Trp Ile Arg Gln Ala
 50 55 60

FP1804 Sequence Listing.TXT

Pro Gly Lys Gly Leu Glu Trp Val Ala Ser Ile Thr Arg Ser Gly Gly
65 70 75 80

Arg Ile Tyr Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
85 90 95

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

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Leu Asp Gly Arg Asp Gly Trp
115 120 125

Val Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
130 135 140

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asn Phe Met
145 150 155 160

Leu Thr Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys Thr Val Thr
165 170 175

Ile Ser Cys Lys Arg Asn Thr Gly Asn Ile Gly Ser Asn Tyr Val Asn
180 185 190

Trp Tyr Gln Gln His Glu Gly Ser Ser Pro Thr Thr Ile Ile Tyr Arg
195 200 205

Asn Asp Lys Arg Pro Asp Gly Val Ser Asp Arg Phe Ser Gly Ser Ile
210 215 220

Asp Arg Ser Ser Lys Ser Ala Ser Leu Thr Ile Ser Asn Leu Lys Thr
225 230 235 240

Glu Asp Glu Ala Asp Tyr Phe Cys Gln Ser Tyr Ser Ser Gly Phe Ile
245 250 255

Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Ala Ala Glu Pro Lys Ser
260 265 270

Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala
275 280 285

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
290 295 300

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Ser Val Ser
305 310 315 320

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
325 330 335

FP1804 Sequence Listing.TXT

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
340 345 350

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
355 360 365

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
370 375 380

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
385 390 395 400

Val Tyr Val Tyr Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val
405 410 415

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
420 425 430

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
435 440 445

Pro Val Leu Asp Ser Asp Gly Ser Phe Ala Leu Val Ser Lys Leu Thr
450 455 460

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
465 470 475 480

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
485 490 495

Ser Pro Gly

<210> 228
<211> 1497
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of C3E-8018

<400> 228
atgcgcccta cctgggcctg gtggctgttc ctggtgctgc tgctggccct gtgggccccca 60
gccccggggcg gagaagtgca gctggtggaa tccggggggg gcctggtgca gcctggggggg 120
agcctgagac tgagtgtgtc cgcctctggg gtgacattta actactatgg catgtcttgg 180
atccgccagg cacctggaaa gggcctggag tgggtggcca gcatcattc ttccggcggg 240
cgaatctact atccccgacag cgtcaagggc aggttcacaa tttcccgca gaacacacag 300
aaaactctgt acctgcagat gaatagcctg agagccgaag atacagctgt gtactattgc 360
actctggacg gcagggatgg gtgggtcgcc tattgggggc agggaaccct ggtgacagtc 420
agctccggag gaggaggatc tggcggagga ggcagtgggg gaggcggggtc aaactttatg 480

FP1804 Sequence Listing.TXT

ctgacccagc	cccacagtgt	gtcagagagc	cctggcaaga	ctgtcaccat	ctcttgtaaa	540
aggaacaccg	gaaatattgg	cagtaactac	gtgaattggg	atcagcagca	tgaagggtct	600
agtccaacca	caatcatcta	ccggaacgat	aagagacccg	acgggggtgtc	cgatcgattc	660
tccggatcta	tgcaccggtc	aagcaagagt	gcttcactga	ccattagcaa	tctgaaaaca	720
gaggacgaag	cagattactt	ttgccagtcc	tattcctctg	gcttcattct	tggaggcggg	780
actaaactga	ccgtgctggc	ggccgagcct	aaaagtagcg	ataaaaacca	tacctgcccc	840
ccctgcccgg	cgccagaggc	tgcaggagga	ccaagcgtgt	tcctgtttcc	acccaagcct	900
aaagacacac	tgatgatttc	ccgaaccccc	gaagtcacat	gcgtggtcgt	gtctgtgagt	960
cacgaggacc	ctgaagtcaa	gttcaactgg	tacgtggatg	gcgtcgaggt	gcataatgcc	1020
aagactaaac	ctagggagga	acagtacaac	tcaacctatc	gcgtcgtgag	cgtcctgaca	1080
gtgctgcacc	aggattggct	gaacggcaaa	gaatataagt	gcaaagtgag	caataaggcc	1140
ctgcccgtc	ctatcgagaa	aaccatttcc	aaggctaaag	ggcagcctcg	cgaaccacag	1200
gtctacgtct	accccccatc	aagagatgaa	ctgacaaaaa	atcaggtctc	tctgacatgc	1260
ctgggtcaaag	gattctaccc	ttccgacatc	gccgtggagt	gggaaagtaa	cggccagccc	1320
gagaacaatt	acaagaccac	accccctgtc	ctggactctg	atgggagttt	cgctctgggtg	1380
tcaaagctga	ccgtcgataa	aagccggtgg	cagcagggca	atgtgttttag	ctgctccgtc	1440
atgcacgaag	ccctgcacaa	tactacaca	cagaagtccc	tgagcctgag	ccctggc	1497

<210> 229
 <211> 499
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of C3E-8018

<400> 229

Met	Arg	Pro	Thr	Trp	Ala	Trp	Trp	Leu	Phe	Leu	Val	Leu	Leu	Leu	Ala
1				5				10						15	

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

Gly	Gly	Leu	Val	Gln	Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala
		35				40						45			

Ser	Gly	Val	Thr	Phe	Asn	Tyr	Tyr	Gly	Met	Ser	Trp	Ile	Arg	Gln	Ala
	50					55					60				

Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val	Ala	Ser	Ile	Thr	Ser	Ser	Gly	Gly
65					70					75				80	

Arg	Ile	Tyr	Tyr	Pro	Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg
				85					90					95	

FP1804 Sequence Listing.TXT

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

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Leu Asp Gly Arg Asp Gly Trp
115 120 125

Val Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
130 135 140

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asn Phe Met
145 150 155 160

Leu Thr Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys Thr Val Thr
165 170 175

Ile Ser Cys Lys Arg Asn Thr Gly Asn Ile Gly Ser Asn Tyr Val Asn
180 185 190

Trp Tyr Gln Gln His Glu Gly Ser Ser Pro Thr Thr Ile Ile Tyr Arg
195 200 205

Asn Asp Lys Arg Pro Asp Gly Val Ser Asp Arg Phe Ser Gly Ser Ile
210 215 220

Asp Arg Ser Ser Lys Ser Ala Ser Leu Thr Ile Ser Asn Leu Lys Thr
225 230 235 240

Glu Asp Glu Ala Asp Tyr Phe Cys Gln Ser Tyr Ser Ser Gly Phe Ile
245 250 255

Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Ala Ala Glu Pro Lys Ser
260 265 270

Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala
275 280 285

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
290 295 300

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Ser Val Ser
305 310 315 320

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
325 330 335

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
340 345 350

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
355 360 365

FP1804 Sequence Listing.TXT

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
 370 375 380

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
 385 390 395 400

Val Tyr Val Tyr Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val
 405 410 415

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
 420 425 430

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
 435 440 445

Pro Val Leu Asp Ser Asp Gly Ser Phe Ala Leu Val Ser Lys Leu Thr
 450 455 460

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
 465 470 475 480

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
 485 490 495

Ser Pro Gly

<210> 230
 <211> 1494
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> nucleotide sequence of C3E-8025

<400> 230
 atgcggccca cctgggcatg gtggctgttc ctggtgctgc tgctggccct gtggggccct 60
 gccaggggag gagaagtgca gctggtggaa tccggggggg gcctggtgca gcctgggggg 120
 agcctgagac tgagttgtgc cgcctctggg gtgacattta actactatgg catgtcttgg 180
 atccgccagg cacctggaaa gggcctggag tgggtggcca gcatcactag gtccggcggg 240
 cgaatctact atccgacag cgtcaagggc aggttcacaa tttcccgca gaacacacag 300
 aaaactctgt acctgcagat gaatagcctg agagccgaag atacagctgt gtactattgc 360
 actctggacg gcagggatgg gtgggtcgcc tattgggggc agggaaacct ggtgacagtc 420
 agctccggag gaggaggatc tggcggagga ggcagtgggg gaggcgggtc aaactttatg 480
 ctactcagc cgtcctctgt ttctggcgta cctggccaac gggtgaccat tagctgtacg 540
 ggtaataaccg ggaatatcgg gtctaactac gtgaactggt atcagcagct tccagggaca 600
 gctcccaagt tgctgatcta tcgcgacgac aaaagaccct caggggtccc tgaccgattt 660

FP1804 Sequence Listing.TXT

```

agtggcagca aaagcggtac ttccgcttcc ctggcgataa ccggccttca ggccgaagat      720
gaggcagact actattgcca gtcattttcc agcggcttca tcttcggagg cggaactaag      780
ctgacagtgt tggcggccga gcctaaaagt agcgataaaa cccatacctg cccccctgc      840
ccggcgccag aggctgcagg aggaccaagc gtgttcctgt ttccacccaa gcctaaagac      900
acactgatga tttcccgaac ccccgaagtc acatgcgtgg tcgtgtctgt gagtcacgag      960
gacctgaag tcaagttcaa ctggtacgtg gatggcgctg aggtgcataa tgccaagact     1020
aaacctaggg aggaacagta caactcaacc tatcgcgctg tgagcgtcct gacagtgtctg     1080
caccaggatt ggctgaacgg caaagaatat aagtgcaaag tgagcaataa ggccctgccc     1140
gtccttatcg agaaaacat ttccaaggct aaagggcagc ctcggaacc acaggtctac     1200
gtctaccccc catcaagaga tgaactgaca aaaaatcagg tctctctgac atgcctggtc     1260
aaaggattct acccttccga catcgccgtg gagtgggaaa gtaacggcca gcccgagaac     1320
aattacaaga ccacaccccc tgtcctggac tctgatggga gtttcgctct ggtgtcaaag     1380
ctgaccgtcg ataaaagccg gtggcagcag ggcaatgtgt ttagctgctc cgtcatgcac     1440
gaagccctgc acaatcacta cacacagaag tccctgagcc tgagccctgg caag          1494

```

```

<210> 231
<211> 498
<212> PRT
<213> Artificial Sequence

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<220>
<223> amino acid sequence of C3E-8025

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```

<400> 231

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```

Met Arg Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Leu Ala
1           5           10          15

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

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
35          40          45

Ser Gly Val Thr Phe Asn Tyr Tyr Gly Met Ser Trp Ile Arg Gln Ala
50          55          60

Pro Gly Lys Gly Leu Glu Trp Val Ala Ser Ile Thr Arg Ser Gly Gly
65          70          75          80

Arg Ile Tyr Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
85          90          95

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

```

FP1804 Sequence Listing.TXT

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Leu Asp Gly Arg Asp Gly Trp
115 120 125

Val Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
130 135 140

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asn Phe Met
145 150 155 160

Leu Thr Gln Pro Ser Ser Val Ser Gly Val Pro Gly Gln Arg Val Thr
165 170 175

Ile Ser Cys Thr Gly Asn Thr Gly Asn Ile Gly Ser Asn Tyr Val Asn
180 185 190

Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu Ile Tyr Arg
195 200 205

Asp Asp Lys Arg Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys
210 215 220

Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Phe Gln Ala Glu Asp
225 230 235 240

Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly
245 250 255

Gly Gly Thr Lys Leu Thr Val Leu Ala Ala Glu Pro Lys Ser Ser Asp
260 265 270

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly
275 280 285

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
290 295 300

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Ser Val Ser His Glu
305 310 315 320

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
325 330 335

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
340 345 350

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
355 360 365

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
370 375 380

FP1804 Sequence Listing.TXT

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
385 390 395 400

Val Tyr Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
405 410 415

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
420 425 430

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
435 440 445

Leu Asp Ser Asp Gly Ser Phe Ala Leu Val Ser Lys Leu Thr Val Asp
450 455 460

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
465 470 475 480

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
485 490 495

Gly Lys

<210> 232
<211> 1500
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of C3E-8027

<400> 232
atgcgcccta cctgggcctg gtggctgttc ctggtgctgc tgctggccct gtgggccccca 60
gcccggggcg gagaagtgca gctggtggaa tccggggggg gcctggtgca gcctggggggg 120
agcctgagac tgagttgtgc cgcctctggg gtgacattta actactatgg catgtcttgg 180
atccgccagg cacctggaaa gggcctggag tgggtggcca gcatcactag gtccggcggg 240
cgaatctact atcccgcag cgtcaagggc aggttcacaa tttccgcga gaacacacag 300
aaaactctgt acctgcagat gaatagcctg agagccgaag atacagctgt gtactattgc 360
actctggacg gcagggatgg gtgggtcgcc tattgggggc aggaaccct ggtgacagtc 420
agctccggag gaggaggatc tggcggagga ggcagtgggg gaggcgggtc aaactttatg 480
ctgaccagc cccacagtgt gtcagagagc cctggcaaga ctgtcaccat ctcttgtaaa 540
aggaacaccg gaaatattgg cagtaactac gtgaattggt atcagcagca tgaaggttct 600
agtccaacca caatcatcta ccggaacgat aagagaccg acggggtgtc cgatcgattc 660
tccggatcta tcgaccggtc aagcaagagt gttcactga ccattagcaa tctgaaaaca 720
gaggacgaag cagattactt ttgccagtcc tattcctctg gttcatctt tggaggcggg 780
actaaactga ccgtgctggc ggccgagcct aaaagtagcg ataaaacca tacctgcccc 840

FP1804 Sequence Listing.TXT

```

ccctgcccgg cgccagagggc tgcaggagga ccaagcgtgt tcctgtttcc acccaagcct      900
aaagacacac tgatgatttc ccgaaccccc gaagtcacat gcgtgggtcgt gtctgtgagt      960
cacgaggacc ctgaagtcaa gttcaactgg tacgtggatg gcgtcgaggt gcataatgcc      1020
aagactaaac ctagggagga acagtacaac tcaacctatc gcgtcgtgag cgtcctgaca      1080
gtgctgcacc aggatgggct gaacggcaaa gaatataagt gcaaagtgag caataaggcc      1140
ctgcccgctc ctatcgagaa aaccattttcc aaggctaaag ggcagcctcg cgaaccacag      1200
gtctacgtct acccccatc aagagatgaa ctgacaaaaa atcagggtctc tctgacatgc      1260
ctgggtcaaag gattctaccc ttccgacatc gccgtggagt gggaaagtaa cggccagccc      1320
gagaacaatt acaagaccac accccctgtc ctggactctg atgggagttt cgctctgggtg      1380
tcaaagctga ccgtcgataa aagccggtgg cagcagggca atgtgtttag ctgctccgtc      1440
atgcacgaag ccctgcacaa tctactacaca cagaagtccc tgagcctgag ccctggcaag      1500

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<210> 233
 <211> 500
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> amino acid sequence of C3E-8027

<400> 233

Met Arg Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Leu Ala
 1 5 10 15

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

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
 35 40 45

Ser Gly Val Thr Phe Asn Tyr Tyr Gly Met Ser Trp Ile Arg Gln Ala
 50 55 60

Pro Gly Lys Gly Leu Glu Trp Val Ala Ser Ile Thr Arg Ser Gly Gly
 65 70 75 80

Arg Ile Tyr Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
 85 90 95

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

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Leu Asp Gly Arg Asp Gly Trp
 115 120 125

Val Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
 130 135 140

FP1804 Sequence Listing.TXT

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asn Phe Met
 145 150 155 160
 Leu Thr Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys Thr Val Thr
 165 170 175
 Ile Ser Cys Lys Arg Asn Thr Gly Asn Ile Gly Ser Asn Tyr Val Asn
 180 185 190
 Trp Tyr Gln Gln His Glu Gly Ser Ser Pro Thr Thr Ile Ile Tyr Arg
 195 200 205
 Asn Asp Lys Arg Pro Asp Gly Val Ser Asp Arg Phe Ser Gly Ser Ile
 210 215 220
 Asp Arg Ser Ser Lys Ser Ala Ser Leu Thr Ile Ser Asn Leu Lys Thr
 225 230 235 240
 Glu Asp Glu Ala Asp Tyr Phe Cys Gln Ser Tyr Ser Ser Gly Phe Ile
 245 250 255
 Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Ala Ala Glu Pro Lys Ser
 260 265 270
 Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala
 275 280 285
 Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
 290 295 300
 Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Ser Val Ser
 305 310 315 320
 His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
 325 330 335
 Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
 340 345 350
 Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
 355 360 365
 Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
 370 375 380
 Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
 385 390 395 400
 Val Tyr Val Tyr Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val
 405 410 415

FP1804 Sequence Listing.TXT

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
420 425 430

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
435 440 445

Pro Val Leu Asp Ser Asp Gly Ser Phe Ala Leu Val Ser Lys Leu Thr
450 455 460

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
465 470 475 480

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
485 490 495

Ser Pro Gly Lys
500

<210> 234
<211> 1500
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of C3E-8028

<400> 234
atgcgcccta cctgggcctg gtggctgttc ctggtgctgc tgctggccct gtggggcccca 60
gcccggggcg gagaagtgca gctggtggaa tccggggggg gcctggtgca gcctgggggg 120
agcctgagac tgagttgtgc cgcctctggg gtgacattta actactatgg catgtcttgg 180
atccgccagg cacctgaaa gggcctggag tgggtggcca gcatcacttc ttccggcggg 240
cgaatctact atcccgacag cgtcaagggc aggttcacaa tttccgcga gaacacacag 300
aaaactctgt acctgcagat gaatagcctg agagccgaag atacagctgt gtactattgc 360
actctggacg gcagggatgg gtgggtcgcc tattgggggc aggggaaccct ggtgacagtc 420
agctccggag gaggaggatc tggcggagga ggcagtgggg gaggcgggtc aaactttatg 480
ctgaccagc cccacagtgt gtcagagagc cctggcaaga ctgtcaccat ctcttgtaaa 540
aggaacaccg gaaatattgg cagtaactac gtgaattggt atcagcagca tgaagggtct 600
agtccaacca caatcatcta ccggaacgat aagagacccg acgggggtgtc cgatcgattc 660
tccggatcta tcgaccggtc aagcaagagt gcttactga ccattagcaa tctgaaaaca 720
gaggacgaag cagattactt ttgccagtcc tattcctctg gcttcatctt tggaggcggg 780
actaaactga ccgtgctggc ggccgagcct aaaagtagcg ataaaaccca tacctgcccc 840
ccctgcccgg cgccagaggc tgcaggagga ccaagcgtgt tcctgtttcc acccaagcct 900
aaagacacac tgatgatttc ccgaaccccc gaagtcacat gcgtggctgt gtctgtgagt 960
cacgaggacc ctgaagtcaa gttcaactgg tacgtggatg gcgtcgaggt gcataatgcc 1020

FP1804 Sequence Listing.TXT

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aagactaaac ctagggagga acagtacaac tcaacctatc gcgtcgtgag cgtcctgaca      1080
gtgctgcacc aggattggct gaacggcaaa gaatataagt gcaaagtgag caataaggcc      1140
ctgcccgtc ctatcgagaa aaccatttcc aaggctaaag ggcagcctcg cgaaccacag      1200
gtctacgtct acccccatc aagagatgaa ctgacaaaaa atcaggtctc tctgacatgc      1260
ctgggtcaaag gattctaccc ttccgacatc gccgtggagt gggaaagtaa cggccagccc      1320
gagaacaatt acaagaccac accccctgtc ctggactctg atgggagttt cgctctgggtg      1380
tcaaagctga ccgtcgataa aagccggtgg cagcagggca atgtgtttag ctgctccgtc      1440
atgcacgaag ccctgcacaa tcactacaca cagaagtccc tgagcctgag ccctggcaag      1500

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<210> 235
<211> 500
<212> PRT
<213> Artificial Sequence

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```

<220>
<223> amino acid sequence of C3E-8028
<400> 235

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```

Met Arg Pro Thr Trp Ala Trp Trp Leu Phe Leu Val Leu Leu Leu Ala
1          5          10          15

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

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
35          40          45

Ser Gly Val Thr Phe Asn Tyr Tyr Gly Met Ser Trp Ile Arg Gln Ala
50          55          60

Pro Gly Lys Gly Leu Glu Trp Val Ala Ser Ile Thr Ser Ser Gly Gly
65          70          75          80

Arg Ile Tyr Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
85          90          95

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

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Leu Asp Gly Arg Asp Gly Trp
115         120         125

Val Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly
130         135         140

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Asn Phe Met
145         150         155         160

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FP1804 Sequence Listing.TXT

Leu Thr Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys Thr Val Thr
165 170 175

Ile Ser Cys Lys Arg Asn Thr Gly Asn Ile Gly Ser Asn Tyr Val Asn
180 185 190

Trp Tyr Gln Gln His Glu Gly Ser Ser Pro Thr Thr Ile Ile Tyr Arg
195 200 205

Asn Asp Lys Arg Pro Asp Gly Val Ser Asp Arg Phe Ser Gly Ser Ile
210 215 220

Asp Arg Ser Ser Lys Ser Ala Ser Leu Thr Ile Ser Asn Leu Lys Thr
225 230 235 240

Glu Asp Glu Ala Asp Tyr Phe Cys Gln Ser Tyr Ser Ser Gly Phe Ile
245 250 255

Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Ala Ala Glu Pro Lys Ser
260 265 270

Ser Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala
275 280 285

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
290 295 300

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Ser Val Ser
305 310 315 320

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
325 330 335

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
340 345 350

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
355 360 365

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
370 375 380

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
385 390 395 400

Val Tyr Val Tyr Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val
405 410 415

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
420 425 430

FP1804 Sequence Listing.TXT

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
435 440 445

Pro Val Leu Asp Ser Asp Gly Ser Phe Ala Leu Val Ser Lys Leu Thr
450 455 460

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
465 470 475 480

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
485 490 495

Ser Pro Gly Lys
500

<210> 236
<211> 1428
<212> DNA
<213> Artificial Sequence

<220>
<223> nucleotide sequence of h2B1 Fab HC_4

<400> 236
atgaggccta cctgggcctg gtggctgttc ctggtgctgc tgctggcctt gtgggcccc 60
gcccggggcc aggtgcagct ggtggagtcc ggcggcggcc tggatgaagcc cagccagacc 120
ctgtccctga cctgcacatt cagcggcttt tccctgaaca catacgatat gggagtggga 180
tggatcagac agccacctgg caagggcctg gaggatgctg gcaacatctg gtgggacgat 240
gacaagtact ataatccctc tctgaagagc agagtgaaca tctctaagga tacaagcaac 300
aatcaggcct ccctgaagct gagctccgtg accgccgccg acacagccgt gtactattgc 360
gccaggatcg agacagtgcg ggtgagccgg aagggattcg cactctgggg acagggcacc 420
ctggtgacag tgtctagcgc tagcacaag ggacctagcg tgttccact ggccccttcc 480
tctaagtcca cctctggagg aacagccgcc ctgggctgtc tggatgaagga ctatttcct 540
gagccagtga ccgtgtcctg gaactctggg gccctgacca gcggagtga cacatttcct 600
gccgtgctgc agagctccgg cctgtacagc ctgtctagcg tggatgaccgt gccatcctct 660
agcctgggca ccagacata tatctgcaac gtgaatcaca agccaagcaa tacaaggtc 720
gacaagagag tggagcccaa gtcctgtgac aagaccaca catgccacc ctgtccggcg 780
ccagaggctg caggaggacc aagcgtgttc ctgtttccac ccaagcctaa agacacactg 840
atgatttccc gaacccccga agtcacatgc gtggctgtgt ctgtgagtca cgaggacct 900
gaagtcaagt tcaactggta cgtggatggc gtcgaggtgc ataatgcaa gactaaacct 960
agggaggaac agtacaactc aacctatcgc gtcgtgagcg tcctgacagt gctgcaccag 1020
gattggctga acggcaaaga atataagtgc aaagtgaaga ataaggccct gcccgctcct 1080
atcgagaaaa ccatttccaa ggctaaaggg cagcctcgcg aaccacaggt ctacgtgctg 1140
ccccctagcc gcgacgaact gactaaaaat caggtctctc tgctgtgtct ggtcaaagga 1200

FP1804 Sequence Listing.TXT

ttctaccctt cgcacatcgc cgtggagtgg gaaagtaacg gccagcccga gaacaattac	1260
ctgacctggc cccctgtgct ggactctgat gggagtttct ttctgtattc aaagctgaca	1320
gtcgataaaa gccggtggca gcagggcaat gtgttcagct gctccgcat gcacgaagca	1380
ctgcacaacc attacactca gaagtccttg tccctgtcac ctggcaag	1428

<210> 237
 <211> 476
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> nucleotide_sequence_of_h2B1_Fab_HC_4

<400> 237

Met	Arg	Pro	Thr	Trp	Ala	Trp	Trp	Leu	Phe	Leu	Val	Leu	Leu	Leu	Ala
1				5					10					15	

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

Gly	Leu	Val	Lys	Pro	Ser	Gln	Thr	Leu	Ser	Leu	Thr	Cys	Thr	Phe	Ser
		35					40					45			

Gly	Phe	Ser	Leu	Asn	Thr	Tyr	Asp	Met	Gly	Val	Gly	Trp	Ile	Arg	Gln
	50					55					60				

Pro	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Ile	Gly	Asn	Ile	Trp	Trp	Asp	Asp
65					70					75					80

Asp	Lys	Tyr	Tyr	Asn	Pro	Ser	Leu	Lys	Ser	Arg	Val	Thr	Ile	Ser	Lys
				85					90					95	

Asp	Thr	Ser	Asn	Asn	Gln	Ala	Ser	Leu	Lys	Leu	Ser	Ser	Val	Thr	Ala
			100					105					110		

Ala	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Ile	Glu	Thr	Val	Arg	Val
		115					120					125			

Ser	Arg	Lys	Gly	Phe	Ala	His	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val
	130					135					140				

Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe	Pro	Leu	Ala	Pro	Ser
145					150					155					160

Ser	Lys	Ser	Thr	Ser	Gly	Gly	Thr	Ala	Ala	Leu	Gly	Cys	Leu	Val	Lys
				165					170					175	

Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu
			180					185					190		

FP1804 Sequence Listing.TXT

Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu
195 200 205

Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr
210 215 220

Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val
225 230 235 240

Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro
245 250 255

Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
260 265 270

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

Thr Cys Val Val Val Ser Val Ser His Glu Asp Pro Glu Val Lys Phe
290 295 300

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
305 310 315 320

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
325 330 335

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
340 345 350

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
355 360 365

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Val Leu Pro Pro Ser Arg
370 375 380

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Leu Cys Leu Val Lys Gly
385 390 395 400

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
405 410 415

Glu Asn Asn Tyr Leu Thr Trp Pro Pro Val Leu Asp Ser Asp Gly Ser
420 425 430

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
435 440 445

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
450 455 460

FP1804 Sequence Listing.TXT

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
465 470 475

<210> 238
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<220>
<221> MISC_FEATURE
<222> (2)..(2)
<223> The first xaa is any naturally occurring amino acid

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> The second xaa is any naturally occurring amino acid

<220>
<221> misc_feature
<222> (4)..(4)
<223> Xaa can be any naturally occurring amino acid

<400> 238

Ile Thr Xaa Xaa Gly Gly Arg Ile
1 5

<210> 239
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> amino_acid_sequence_of_modified_L_CDR2

<220>
<221> MISC_FEATURE
<222> (2)..(2)
<223> Xaa is any naturally occurring amino acid

<220>
<221> misc_feature
<222> (5)..(5)
<223> Xaa can be any naturally occurring amino acid

<400> 239

Arg Xaa Asp
1

<210> 240
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
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FP1804 Sequence Listing.TXT

<220>
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 <222> (53)..(54)
 <223> The first and second Xaa's are any naturally occurring amino acid

<400> 240

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

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

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

Ala Ser Ile Thr Xaa Xaa Gly Gly Arg Ile Tyr Tyr Pro Asp Ser Val
 50 55 60

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

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

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

Leu Val Thr Val Ser Ser
 115

<210> 241
 <211> 109
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
 <221> MISC_FEATURE
 <222> (52)..(52)
 <223> Xaa is any naturally occurring amino acid

<400> 241

Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys
 1 5 10 15

Thr Val Thr Ile Ser Cys Lys Arg Asn Thr Gly Asn Ile Gly Ser Asn
 20 25 30

Tyr Val Asn Trp Tyr Gln Gln His Glu Gly Ser Ser Pro Thr Thr Ile
 35 40 45

Ile Tyr Arg Xaa Asp Lys Arg Pro Asp Gly Val Ser Asp Arg Phe Ser
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50

55

60

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

Leu Lys Thr Glu Asp Glu Ala Asp Tyr Phe Cys Gln Ser Tyr Ser Ser
85 90 95

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

<210> 242
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> amino_acid_sequence_of_VL_of_variant_of_C3E-7035

<220>
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<222> (52)..(52)
<223> Xaa is any naturally occurring amino acid

<400> 242

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

Arg Val Thr Ile Ser Cys Lys Arg Asn Thr Gly Asn Ile Gly Ser Asn
20 25 30

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

Ile Tyr Arg Xaa Asp Lys Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Phe Gln
65 70 75 80

Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Ser Ser Gly Phe
85 90 95

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

<210> 243
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> amino_acid_sequence_of_VL_of_variant_of_C3E-7036

FP1804 Sequence Listing.TXT

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<220>
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<222> (52)..(52)
<223> Xaa is any naturally occurring amino acid

<400> 243
Asn Phe Met Leu Thr Gln Pro Ser Ser Val Ser Gly Val Pro Gly Gln
1          5          10          15
Arg Val Thr Ile Ser Cys Thr Gly Asn Thr Gly Asn Ile Gly Ser Asn
20          25          30
Tyr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35          40          45
Ile Tyr Arg Xaa Asp Lys Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50          55          60
Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Phe Gln
65          70          75          80
Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Ser Ser Gly Phe
85          90          95
Ile Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100          105

<210> 244
<211> 269
<212> PRT
<213> Artificial Sequence

<220>
<223> amino_acid_sequence_of_C3E-7078

<400> 244
Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly
1          5          10          15
Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Phe Asn Tyr
20          25          30
Tyr Gly Met Ser Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
35          40          45
Val Ala Ser Ile Thr Arg Ser Gly Gly Arg Ile Tyr Tyr Pro Asp Ser
50          55          60
Val Lys Gly Arg Phe Thr Ile Ser Arg Glu Asn Thr Gln Lys Thr Leu
65          70          75          80
Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr
85          90          95

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FP1804 Sequence Listing.TXT

Cys Thr Leu Asp Gly Arg Asp Gly Trp Val Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Asn Phe Met Leu Thr Gln Pro His Ser Val
130 135 140

Ser Glu Ser Pro Gly Lys Thr Val Thr Ile Ser Cys Lys Arg Asn Thr
145 150 155 160

Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln His Glu Gly
165 170 175

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

Val Ser Asp Arg Phe Ser Gly Ser Ile Asp Arg Ser Ser Lys Ser Ala
195 200 205

Ser Leu Thr Ile Ser Asn Leu Lys Thr Glu Asp Glu Ala Asp Tyr Phe
210 215 220

Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys Leu
225 230 235 240

Thr Val Leu Gly Ala Ala Ala Gly Ala Gly Gly Asp Tyr Lys Asp Asp
245 250 255

Asp Asp Lys Gly Ala Ala Ala His His His His His His
260 265

<210> 245
<211> 267
<212> PRT
<213> Artificial sequence

<220>
<223> amino_acid_sequence_of_C3E-7085

<400> 245

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

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

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

Val Ala Ser Ile Thr Arg Ser Gly Gly Arg Ile Tyr Tyr Pro Asp Ser
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FP1804 Sequence Listing.TXT

50

55

60

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

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

Cys Thr Leu Asp Gly Arg Asp Gly Trp Val Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Asn Phe Met Leu Thr Gln Pro Ser Ser Val
130 135 140

Ser Gly Val Pro Gly Gln Arg Val Thr Ile Ser Cys Thr Gly Asn Thr
145 150 155 160

Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln Leu Pro Gly
165 170 175

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

Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu
195 200 205

Ala Ile Thr Gly Phe Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln
210 215 220

Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys Leu Thr Val
225 230 235 240

Leu Gly Ala Ala Ala Gly Ala Gly Gly Asp Tyr Lys Asp Asp Asp Asp
245 250 255

Lys Gly Ala Ala Ala His His His His His His
260 265

<210> 246

<211> 269

<212> PRT

<213> Artificial Sequence

<220>

<223> amino_acid_sequence_of_C3E-7086

<400> 246

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

FP1804 Sequence Listing.TXT

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

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

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

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

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

Cys Thr Leu Asp Gly Arg Asp Gly Trp Val Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Asn Phe Met Leu Thr Gln Pro His Ser Val
130 135 140

Ser Glu Ser Pro Gly Lys Thr Val Thr Ile Ser Cys Lys Arg Asn Thr
145 150 155 160

Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln His Glu Gly
165 170 175

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

Val Ser Asp Arg Phe Ser Gly Ser Ile Asp Arg Ser Ser Lys Ser Ala
195 200 205

Ser Leu Thr Ile Ser Asn Leu Lys Thr Glu Asp Glu Ala Asp Tyr Phe
210 215 220

Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys Leu
225 230 235 240

Thr Val Leu Gly Ala Ala Ala Gly Ala Gly Gly Asp Tyr Lys Asp Asp
245 250 255

Asp Asp Lys Gly Ala Ala Ala His His His His His
260 265

<210> 247
<211> 269
<212> PRT

<213> Artificial Sequence

<220>

<223> amino_acid_sequence_of_C3E-7087

<400> 247

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

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

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

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

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

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

Cys Thr Leu Asp Gly Arg Asp Gly Trp Val Ala Tyr Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
 115 120 125

Ser Gly Gly Gly Gly Ser Asn Phe Met Leu Thr Gln Pro His Ser Val
 130 135 140

Ser Glu Ser Pro Gly Lys Thr Val Thr Ile Ser Cys Lys Arg Asn Thr
 145 150 155 160

Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln His Glu Gly
 165 170 175

Ser Ser Pro Thr Thr Ile Ile Tyr Arg Gln Asp Lys Arg Pro Asp Gly
 180 185 190

Val Ser Asp Arg Phe Ser Gly Ser Ile Asp Arg Ser Ser Lys Ser Ala
 195 200 205

Ser Leu Thr Ile Ser Asn Leu Lys Thr Glu Asp Glu Ala Asp Tyr Phe
 210 215 220

Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys Leu
 225 230 235 240

Thr Val Leu Gly Ala Ala Ala Gly Ala Gly Gly Asp Tyr Lys Asp Asp

FP1804 Sequence Listing.TXT

245

250

255

Asp Asp Lys Gly Ala Ala Ala His His His His His
260 265

<210> 248
<211> 269
<212> PRT
<213> Artificial Sequence

<220>
<223> amino_acid_sequence_of_C3E-7088

<400> 248

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

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

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

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

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

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

Cys Thr Leu Asp Gly Arg Asp Gly Trp Val Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Asn Phe Met Leu Thr Gln Pro His Ser Val
130 135 140

Ser Glu Ser Pro Gly Lys Thr Val Thr Ile Ser Cys Lys Arg Asn Thr
145 150 155 160

Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln His Glu Gly
165 170 175

Ser Ser Pro Thr Thr Ile Ile Tyr Arg Asn Asp Lys Arg Pro Asp Gly
180 185 190

Val Ser Asp Arg Phe Ser Gly Ser Ile Asp Arg Ser Ser Lys Ser Ala
195 200 205

FP1804 Sequence Listing.TXT

Ser Leu Thr Ile Ser Asn Leu Lys Thr Glu Asp Glu Ala Asp Tyr Phe
210 215 220

Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys Leu
225 230 235 240

Thr Val Leu Gly Ala Ala Ala Gly Ala Gly Gly Asp Tyr Lys Asp Asp
245 250 255

Asp Asp Lys Gly Ala Ala Ala His His His His His His
260 265

<210> 249
<211> 269
<212> PRT
<213> Artificial Sequence

<220>
<223> amino_acid_sequence_of_C3E-7089
<400> 249

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

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

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

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

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

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

Cys Thr Leu Asp Gly Arg Asp Gly Trp Val Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Asn Phe Met Leu Thr Gln Pro His Ser Val
130 135 140

Ser Glu Ser Pro Gly Lys Thr Val Thr Ile Ser Cys Lys Arg Asn Thr
145 150 155 160

Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln His Glu Gly
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FP1804 Sequence Listing.TXT

165

170

175

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

Val Ser Asp Arg Phe Ser Gly Ser Ile Asp Arg Ser Ser Lys Ser Ala
195 200 205

Ser Leu Thr Ile Ser Asn Leu Lys Thr Glu Asp Glu Ala Asp Tyr Phe
210 215 220

Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys Leu
225 230 235 240

Thr Val Leu Gly Ala Ala Ala Gly Ala Gly Gly Asp Tyr Lys Asp Asp
245 250 255

Asp Asp Lys Gly Ala Ala Ala His His His His His His
260 265

<210> 250

<211> 269

<212> PRT

<213> Artificial Sequence

<220>

<223> amino_acid_sequence_of_C3E-7090

<400> 250

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

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

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

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

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

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

Cys Thr Leu Asp Gly Arg Asp Gly Trp Val Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

FP1804 Sequence Listing.TXT

Ser Gly Gly Gly Gly Ser Asn Phe Met Leu Thr Gln Pro His Ser Val
130 135 140

Ser Glu Ser Pro Gly Lys Thr Val Thr Ile Ser Cys Lys Arg Asn Thr
145 150 155 160

Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln His Glu Gly
165 170 175

Ser Ser Pro Thr Thr Ile Ile Tyr Arg Ala Asp Lys Arg Pro Asp Gly
180 185 190

Val Ser Asp Arg Phe Ser Gly Ser Ile Asp Arg Ser Ser Lys Ser Ala
195 200 205

Ser Leu Thr Ile Ser Asn Leu Lys Thr Glu Asp Glu Ala Asp Tyr Phe
210 215 220

Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys Leu
225 230 235 240

Thr Val Leu Gly Ala Ala Ala Gly Ala Gly Gly Asp Tyr Lys Asp Asp
245 250 255

Asp Asp Lys Gly Ala Ala Ala His His His His His His
260 265

<210> 251
<211> 269
<212> PRT
<213> Artificial Sequence

<220>
<223> amino_acid_sequence_of_C3E-7091

<400> 251

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

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

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

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

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

Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr
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FP1804 Sequence Listing.TXT

85

90

95

Cys Thr Leu Asp Gly Arg Asp Gly Trp Val Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Asn Phe Met Leu Thr Gln Pro His Ser Val
130 135 140

Ser Glu Ser Pro Gly Lys Thr Val Thr Ile Ser Cys Lys Arg Asn Thr
145 150 155 160

Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln His Glu Gly
165 170 175

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

Val Ser Asp Arg Phe Ser Gly Ser Ile Asp Arg Ser Ser Lys Ser Ala
195 200 205

Ser Leu Thr Ile Ser Asn Leu Lys Thr Glu Asp Glu Ala Asp Tyr Phe
210 215 220

Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys Leu
225 230 235 240

Thr Val Leu Gly Ala Ala Ala Gly Ala Gly Gly Asp Tyr Lys Asp Asp
245 250 255

Asp Asp Lys Gly Ala Ala Ala His His His His His His
260 265

<210> 252

<211> 269

<212> PRT

<213> Artificial Sequence

<220>

<223> amino_acid_sequence_of_C3E-7092

<400> 252

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

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

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

FP1804 Sequence Listing.TXT

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

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

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

Cys Thr Leu Asp Gly Arg Asp Gly Trp Val Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Asn Phe Met Leu Thr Gln Pro His Ser Val
130 135 140

Ser Glu Ser Pro Gly Lys Thr Val Thr Ile Ser Cys Lys Arg Asn Thr
145 150 155 160

Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln His Glu Gly
165 170 175

Ser Ser Pro Thr Thr Ile Ile Tyr Arg Gln Asp Lys Arg Pro Asp Gly
180 185 190

Val Ser Asp Arg Phe Ser Gly Ser Ile Asp Arg Ser Ser Lys Ser Ala
195 200 205

Ser Leu Thr Ile Ser Asn Leu Lys Thr Glu Asp Glu Ala Asp Tyr Phe
210 215 220

Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys Leu
225 230 235 240

Thr Val Leu Gly Ala Ala Ala Gly Ala Gly Gly Asp Tyr Lys Asp Asp
245 250 255

Asp Asp Lys Gly Ala Ala Ala His His His His His His
260 265

<210> 253
<211> 269
<212> PRT
<213> Artificial Sequence

<220>
<223> amino_acid_sequence_of_C3E-7093

<400> 253

Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly

FP1804 Sequence Listing.TXT

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

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<210> 254

FP1804 Sequence Listing.TXT

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<211> 269
<212> PRT
<213> Artificial Sequence

<220>
<223> amino_acid_sequence_of_C3E-7094

<400> 254
Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly
1      5      10
Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Val Thr Phe Asn Tyr
20     25     30
Tyr Gly Met Ser Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
35     40     45
Val Ala Ser Ile Thr Ser Ser Gly Gly Arg Ile Tyr Tyr Pro Asp Ser
50     55     60
Val Lys Gly Arg Phe Thr Ile Ser Arg Glu Asn Thr Gln Lys Thr Leu
65     70     75     80
Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr
85     90     95
Cys Thr Leu Asp Gly Arg Asp Gly Trp Val Ala Tyr Trp Gly Gln Gly
100    105    110
Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115    120    125
Ser Gly Gly Gly Gly Ser Asn Phe Met Leu Thr Gln Pro His Ser Val
130    135    140
Ser Glu Ser Pro Gly Lys Thr Val Thr Ile Ser Cys Lys Arg Asn Thr
145    150    155    160
Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln His Glu Gly
165    170    175
Ser Ser Pro Thr Thr Ile Ile Tyr Arg Ser Asp Lys Arg Pro Asp Gly
180    185    190
Val Ser Asp Arg Phe Ser Gly Ser Ile Asp Arg Ser Ser Lys Ser Ala
195    200    205
Ser Leu Thr Ile Ser Asn Leu Lys Thr Glu Asp Glu Ala Asp Tyr Phe
210    215    220
Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys Leu
225    230    235    240

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FP1804 Sequence Listing.TXT

Thr Val Leu Gly Ala Ala Ala Gly Ala Gly Gly Asp Tyr Lys Asp Asp
245 250 255

Asp Asp Lys Gly Ala Ala Ala His His His His His His
260 265

<210> 255
<211> 269
<212> PRT
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Tyr Gly Met Ser Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
35 40 45

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

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

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

Cys Thr Leu Asp Gly Arg Asp Gly Trp Val Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
115 120 125

Ser Gly Gly Gly Gly Ser Asn Phe Met Leu Thr Gln Pro His Ser Val
130 135 140

Ser Glu Ser Pro Gly Lys Thr Val Thr Ile Ser Cys Lys Arg Asn Thr
145 150 155 160

Gly Asn Ile Gly Ser Asn Tyr Val Asn Trp Tyr Gln Gln His Glu Gly
165 170 175

Ser Ser Pro Thr Thr Ile Ile Tyr Arg Ala Asp Lys Arg Pro Asp Gly
180 185 190

Val Ser Asp Arg Phe Ser Gly Ser Ile Asp Arg Ser Ser Lys Ser Ala
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200

205

Ser Leu Thr Ile Ser Asn Leu Lys Thr Glu Asp Glu Ala Asp Tyr Phe
 210 215 220
 Cys Gln Ser Tyr Ser Ser Gly Phe Ile Phe Gly Gly Gly Thr Lys Leu
 225 230 235 240
 Thr Val Leu Gly Ala Ala Ala Gly Ala Gly Gly Asp Tyr Lys Asp Asp
 245 250 255
 Asp Asp Lys Gly Ala Ala Ala His His His His His His
 260 265