

SEQUENCE LISTING

<110> Daiichi Sankyo Company, Limited

<120> ANTI HER3 ANTIBODY-DRUG CONJUGATE

<130> PD20-9009W0

<150> JP2014-081454

<151> 2014-04-10

<160> 584

<170> PatentIn version 3.5

<210> 1

<211> 342

<212> DNA

<213> Artificial

<220>

<223> Antibody

<400> 1

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tcctgtgcag cctctggggtt caccgtcagt agcaactaca tgagctgggt ccgccaggct 120

ccagggaagg ggctggattg ggtctcagtt atttatagcg gtggtagcac atactacgca 180

gactccgtga agggccgatt caccatctcc agagacaatt ccaagaacac gctgtatctt 240

caaatgaaca gcctgagagc cgaggacacg gccgtgtatt actgtgagag agggcagtggt 300

ctggacgtct ggggcccaagg gaccacggtc accgtctcct ca 342

<210> 2

<211> 114

<212> PRT

<213> Artificial

<220>

<223> Antibody

<400> 2

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

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

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

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

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

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

Arg Gly Gln Trp Leu Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val
100 105 110

Ser Ser

<210> 3
<211> 336
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 3
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atctcctgca ggtcaagtca gagcctcctg catagtaatg gatacaacta tttggattgg 120
tacctgcaga ggccagggca gtctccacaa ctctgtttct atttgggttt tcatcgggcc 180
tccgggggtcc ctgacagggt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcagagtgg aggctgagga tgttgggggt tattactgca ggcaagctct acaaactccg 300
ctcactttcg gcggaggag caaggtggag atcaaa 336

<210> 4
<211> 112
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 4

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

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
20 25 30

Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Arg Pro Gly Gln Ser
35 40 45

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

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

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

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

<210> 5

<211> 374

<212> DNA

<213> Artificial

<220>

<223> Antibody

<400> 5

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acctgtactg tctctggtgg ctccatcagc agtggtgggtt actactggag ctggatccgc	120
cagcaccag ggaagggcct ggagtggatt gggtacatct attccagtgg gagcacctac	180
tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc	240
tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagat	300
agggaactgg aactttacta ctactactac ggtatggacg tctggggcca agggaccacg	360
gtcaccgtct cctc	374

<210> 6
<211> 124
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 6

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

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

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

Trp Ile Gly Tyr Ile Tyr Ser Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Asp Arg Glu Leu Glu Leu Tyr Tyr Tyr Tyr Tyr Gly Met
100 105 110

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

<210> 7
<211> 336
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 7

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tacctgcaga agccagggca gtctccacag ctctgatct atttgggttc taatcgggcc	180
tccgggggtcc ctgacagggt cagtggcagt ggatcaggca cagattttac actgaaaatc	240
agcagagtgg aggctgagga tgttgggatt tattactgca tgcaagctct acaaactccg	300
ctcactttcg gcggaggac caaggtggag atcaaa	336

<210> 8
 <211> 112
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 8

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

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Tyr Ser	
20 25 30	

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

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

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

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

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

<210> 9
 <211> 357
 <212> DNA
 <213> Artificial

<220>

<223> Antibody

<400> 9

cagatcacct tgaaggagtc tggctcctacg ctggtgaaac ccacacagac cctcacgctg 60
acctgcacct tctctgggtt ctactcagc actagtggag tgggtgtggg ctggatccgt 120
cagccccag gaaaggccct ggactggctt gcactcattt attggaatga tgataagcgc 180
tacagcccat ctctgaagag caggctcacc atcaccaagg acacctcaa aaaccaggtg 240
gtccttacia tgaccaacat ggatcttgtg gacacagcca catattactg tgtacacaga 300
gacgaagttc gagggtttga ctactggggc cagggaaccc tggtcaccgt ctctca 357

<210> 10

<211> 119

<212> PRT

<213> Artificial

<220>

<223> Antibody

<400> 10

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

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
20 25 30

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

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

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

Val Leu Thr Met Thr Asn Met Asp Leu Val Asp Thr Ala Thr Tyr Tyr
85 90 95

Cys Val His Arg Asp Glu Val Arg Gly Phe Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 11
<211> 336
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 11
gatgttgatga tgactcagtc tccactctcc ctgcccgtca cccttggaca gccggcctcc 60
atctcctgca ggtctagtca aagcctcgta tacagtgatg gatacaccta cttgcattgg 120
tttcagcaga ggccaggcca atctccaagg cgccttattt ataaggtttc taactgggac 180
tctgggggtcc cagacagatt cagcggcagt gggtcaggca ctgatttcac actgaaaatc 240
agcaggggtgg aggctgagga tgttgggggtt tattactgca tgcaaggtgc aactggccg 300
atcaccttcg gccaaaggac acgactggag attaaa 336

<210> 12
<211> 112
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 12

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

Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val Tyr Ser
20 25 30

Asp Gly Tyr Thr Tyr Leu His Trp Phe Gln Gln Arg Pro Gly Gln Ser
35 40 45

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

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile

65		70		75		80									
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Met	Gln	Gly
				85					90					95	

Ala	His	Trp	Pro	Ile	Thr	Phe	Gly	Gln	Gly	Thr	Arg	Leu	Glu	Ile	Lys
			100					105					110		

<210> 13
 <211> 374
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 13
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 cagcaccag ggaagggcct ggagtggatt gggatcatct attacagtgg gagcacctac 180
 tacaaccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc 240
 tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtatttctg tgcgagagat 300
 cggggaacttg agggttactc caactactac ggtgtggacg tctggggcca agggaccacg 360
 gtcaccgtct cctc 374

<210> 14
 <211> 124
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 14

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

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

Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu

35

40

45

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
 50 55 60

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

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

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

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

<210> 15
 <211> 321
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 15
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggccattagc aactatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
 aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 240
 gaagattttg caacttatta ctgtcaacag aataatagtc tcccgatcac cttcggccaa 300
 gggacacgac tggagattaa a 321

<210> 16
 <211> 107
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 16

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

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

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

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

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

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

Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
 100 105

<210> 17
 <211> 354
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 17
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 tcctgtaagg gttctggata cagctttacc agctactgga tcggctgggt gcgccagatg 120
 cccgggaaag gcctggagtg gatggggatc atctatcctg gtgactctga taccagatac 180
 agcccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatcag caccgcctac 240
 ctgcagtgga gcagcctgaa ggcctcggac accgccatgt attactgtgc gagacatgaa 300
 aactacggtg actacaacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 18
 <211> 118
 <212> PRT

<213> Artificial

<220>

<223> Antibody

<400> 18

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

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

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

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

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

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

Ala Arg His Glu Asn Tyr Gly Asp Tyr Asn Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 19

<211> 321

<212> DNA

<213> Artificial

<220>

<223> Antibody

<400> 19

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtcggaga cagagtcacc 60

atcacttgcc gggcaagtca gagcattcgc agctatttaa attggtatca gcagaaacca 120

gggaaagccc ctaagctcct gatctatgct gcttcagtt tgcaaagtgg ggtcccatca 180

aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg cactttactg ctgtcaacag agtaacgggt ccccgctcac tttcggcgga 300
gggaccaagg tggagatcaa a 321

<210> 20
<211> 107
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 20

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Arg Ser Tyr
20 25 30

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

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

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

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

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

<210> 21
<211> 380
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 21

Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser

115

120

125

<210> 23
 <211> 321
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 23
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 atcacttgcc gggcaagtca gagcattagc agctatttac attggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatccatgct gcatccagtt tacaaagtgg ggtcccatca 180
 aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagtag tctgcaacct 240
 gaagattttg caacttacta ctgtcaacag agttacagta acccgctcac tttcggcgga 300
 gggaccaagg tggagatcca a 321

<210> 24
 <211> 107
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 24

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
 20 25 30

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

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

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

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

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

<210> 25
<211> 354
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 25
gaggtgcagc tgggtgcagtc tggagcagag gtgaaaaagc ccggggagtc tctgaagatc 60
tcctgtaagg gttctggata cagctttacc agctactgga tcggctgggt gcgccagatg 120
cccgggaaaag gcctggagtg gatggggatc atctggcctg gtgactctga taccatatac 180
agccccgtcct tccaaggcca ggtcaccatc tcagccgaca agtccatcag caccgcctac 240
ctgcagtgga gcagcctgaa ggcctcggac accgccatgt attactgtgc gagacatgaa 300
aactacggtg actacaacta ctggggccag ggaaccctgg tcaccgtctc ctca 354

<210> 26
<211> 118
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 26

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

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

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

Gly Ile Ile Trp Pro Gly Asp Ser Asp Thr Ile Tyr Ser Pro Ser Phe

50

55

60

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

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

Ala Arg His Glu Asn Tyr Gly Asp Tyr Asn Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 27
<211> 321
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 27
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtgggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattcga agttatttaa attggtatca gcagaaaccg 120
gggaatgccc ctaaactcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg cactttacta ctgtcaacag agtatcagtt ccccgctcac tttcggcgga 300
gggaccaagg tggagatcaa a 321

<210> 28
<211> 107
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 28

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Arg Ser Tyr
20 25 30

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

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

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

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

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

<210> 29
<211> 374
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 29
caggtgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttctggata caccttcacc agttatgata tcaactgggt gcgacaggcc 120
actggacaag ggcttgagtg gatgggatgg atgaacccta acagtgggtga cactggctat 180
gcacaggtgt tccagggcag agtcaccatg acctggaaca cctccataag cacagcctac 240
atggaactga gcagcctgag atctgaggac acggccgtgt attactgtgc gagatttggg 300
gatctcccgt atgactacag ttactacgaa tggttcgacc cctggggcca gggaaccctg 360
gtcaccgtct cctc 374

<210> 30
<211> 124
<212> PRT
<213> Artificial

<220>

<223> Antibody

<400> 30

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

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

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
35 40 45

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

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

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

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

Asp Pro Trp Gly Gln Gly Thr Leu Val Thr Val Ser
115 120

<210> 31

<211> 321

<212> DNA

<213> Artificial

<220>

<223> Antibody

<400> 31

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	60
atcacttgcc gggcaagcca gagcattagc agctatttaa attggtatca gcagagacca	120
gggaaagccc ctaagctcct gatctatgca gcatccagtt tgcaaagtgg ggtcccatca	180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct	240

gaagattttg caacttacta ctgtcaacag agttacagta ccccgctcac tttcggcgga 300
 gggaccaagg tggagatcaa a 321

<210> 32
 <211> 107
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 32

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
 20 25 30

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Leu
 85 90 95

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

<210> 33
 <211> 386
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 33

caggtacagc tgcagcagtc aggtccagga ctggtgaagc cctcgagac cctctcactc 60

acctgtgcc	tctccgggga	cagtgtctct	agcaacagt	ctgcttgga	ctggatcagg	120
cagtcctccat	cgagaggcct	tgagtggctg	ggaaggacat	actacaggtc	caagtgggtat	180
aatgattatg	cagtatctgt	gaaaagtcga	ataaccatca	accagacac	atccaagaac	240
cagttctccc	tgcagctgaa	ctctgtgact	cccaggagaca	cggctgtgta	ttactgtgca	300
agagatctct	acgatttttg	gagtgggtat	ccctactact	acggtatgga	cgtctggggc	360
caagggacca	cggtcaccgt	ctcctc				386

<210> 34
 <211> 128
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 34

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

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

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

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

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

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

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

Tyr	Tyr	Gly	Met	Asp	Val	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser
		115					120					125			

<210> 35
<211> 383
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 35
caggtacagc tgcagcagtc aggtccagga ctggtgaagc cctcgagac cctctcactc 60
acctgtgcc a tctccgggga cagtgtctct agcaacagtg ctgcttgga ctggatcagg 120
cagtccccat cgagaggcct tgagtggctg ggaaggacat actacaggtc caagtggat 180
aatgattatg cagtatctgt gaaaagtcga ataaccatca acccagacac atccaagaac 240
cagttctccc tgcagctgaa ctctgtgact cccgaggaca cggctgtgta ttactgtgca 300
agagattact atgggtcggg gagtttctac tactactacg gtatggacgt ctggggccaa 360
gggaccacgg tcaccgtctc ctc 383

<210> 36
<211> 127
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 36

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

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

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

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

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

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

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

Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125

<210> 37
<211> 321
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 37
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaggctct gatctatgct gcatccaatt tgcaaagtgg ggtcccatca 180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta cccctcggac gttcggccaa 300
gggaccaagg tggaaatcaa a 321

<210> 38
<211> 107
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 38

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Val Leu Ile

35

40

45

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

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

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

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

<210> 39
 <211> 371
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 39
 caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
 acctgcactg tctctggtgg ctccatcagt agttactact ggagctggat ccggcagccc 120
 gccgggaagg gactggagtg gattgggcat atctatacca gtgggagcac caactacaac 180
 ccctccctca agagtcgagt caccatgtca gtagacacgt ccaagaacca gttctccctg 240
 aagctgagct ctgtgaccgc cgcggacacg gccgtgtatt actgtgagag agaagcgatt 300
 tttggagtgg gcccctacta ctactacggt atggacgtct ggggccaagg gaccacggtc 360
 accgtctcct c 371

<210> 40
 <211> 123
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 40

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

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

<210> 41
 <211> 377
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 41
 caggtgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60
 tcctgcaagg cttctggata caccttcacc ggctactata tgcactgggt gcgacaggcc 120
 cctggacaag ggcttgagt gatgggatgg atcaacccta atattggtgg cacaaactgt 180
 gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac 240
 atggagctga gcaggctgag atctgacgac acggccgtgt attactgtgc gagagggggga 300
 cggtatagca gcagctggtc ctactactac tacggtatgg acgtctgggg ccaagggacc 360
 acggtcaccg tctcctc 377

<210> 42
<211> 125
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 42

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

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

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

Ala Arg Gly Gly Arg Tyr Ser Ser Ser Trp Ser Tyr Tyr Tyr Tyr Gly
100 105 110

Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125

<210> 43
<211> 336
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 43

gatattctga tgaccagac tccactctct ctgtccgtca cccctggaca gccggcctcc

60

<220>

<223> Antibody

<400> 45

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caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc      60
acctgcactg tctctggtgg ctccgtcagc agtggtgggtt actactggag ctggatccgg      120
cagccccag ggaagggact ggagtggatt gggatatatct attacagtgg gagcaccaac      180
tacaaccct ccctcaagag tcgagtcacc atatcagtag acacgtccaa gaaccagttc      240
tccctgaagc tgagctctgt gaccgctgcg gacacggccg tgtattactg tgcgagaggg      300
ggggacagta actacagga ttactactac tactacggtg tggacgtctg gggccaaggg      360
accacggtca ccgtctcctc                                     380
```

<210> 46

<211> 126

<212> PRT

<213> Artificial

<220>

<223> Antibody

<400> 46

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser
      50              55             60

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

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

Cys Ala Arg Gly Gly Asp Ser Asn Tyr Glu Asp Tyr Tyr Tyr Tyr Tyr
```

100

105

110

Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
 115 120 125

<210> 47
 <211> 321
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 47
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc gggcaagtca gagcattagc atctatttac attggtatca gcagaaacca 120
 gggaaagccc ctaagctctt gatctctgct gcatccagtt tgcaaagtgg ggtcccgtca 180
 aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagaag tctgcaacct 240
 gaagattttg caacttacta ctgtcaacag agttacactt ccccgatcac cttcggccaa 300
 gggacacgac tggagattaa a 321

<210> 48
 <211> 107
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 48

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ile Tyr
 20 25 30

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Thr Ser Pro Ile
85 90 95

Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
100 105

<210> 49
<211> 380
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 49
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agttactact ggagctggat ccggcagccc 120
ccagggaagg gactggagtg gattgggtat atctattaca gtgggagcac caactacaac 180
ccctccctca agagtcgagt caccatatca gtagacacgt ccaagcacca gttctccctg 240
aagctgagct ctgtgaccgc tgcggacacg gccgtgtatt actgtgcgag agattcgagt 300
tactatgata gtagtgggta ttacttatac tactacgcta tggacgtctg gggccaaggg 360
accacgggtca ccgtctcctc 380

<210> 50
<211> 126
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 50

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

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

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

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

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

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

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

Ala Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125

<210> 51
<211> 339
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 51
gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tacagctcca acaataagaa ctacttagct 120
tggtaccagc agaaaccagg acagcctcct aagctgctca tttcctgggc atctaccgg 180
gaatccggggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttatactact 300
cctctcactt tcggccctgg gaccaaagtg gatatcaaa 339

<210> 52
<211> 113
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 52

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

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

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

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

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

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

Tyr Tyr Thr Thr Pro Leu Thr Phe Gly Pro Gly Thr Lys Val Asp Ile
100 105 110

Lys

<210> 53

<211> 357

<212> DNA

<213> Artificial

<220>

<223> Antibody

<400> 53

gaggtgcaac tggtggagtc tgggggaggc ttggtacagc ctgggggggtc cctgagactc 60

tcctgtgcag cctctggatt caccttcagt atctatagca tgaactgggt ccgccaggct 120

ccagggaagg ggctggagtg ggtttcatac attagtagta gtagtagtac catatactac 180

gcagactctg tgaagggccg attcaccatc tccagagaca atgccaagaa ctactgtat 240

ctgcaaatga acagcctgag agacaggac acggctgtgt attactgtgc gagagatagg 300

ggtgacttcg atgcttttga tatctggggc caagggacaa tggtcaccgt ctcttca

357

<210> 54
<211> 119
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 54

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

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

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

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

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

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

Ala Arg Asp Arg Gly Asp Phe Asp Ala Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 55
<211> 321
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 55

gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	60
atcacttgcc aggcgagtca ggacattacc aactatttga attggtatca gcagaaacca	120
gggaaagccc ctaagctcct gatctacgat gcatccaatt tggaacagg ggtcccatca	180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct	240
gaagatattg caacatataa ctgtcaacag tgtgaaaatt tcccgatcac cttcggccaa	300
gggacacgac tggagattaa a	321

<210> 56
 <211> 107
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 56

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

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

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

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

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

Glu	Asp	Ile	Ala	Thr	Tyr	Asn	Cys	Gln	Gln	Cys	Glu	Asn	Phe	Pro	Ile
				85					90					95	

Thr	Phe	Gly	Gln	Gly	Thr	Arg	Leu	Glu	Ile	Lys
			100					105		

<210> 57
 <211> 336
 <212> DNA

<213> Artificial

<220>

<223> Antibody

<400> 57

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gatattgtga tgactcagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc      60
atctcctgca ggtctagtca gaggctcctg tatagtaatg gatacaagta tttggattgg      120
tacctgcaga agccagggca gtctccacag ctctgatctt atttgggttc taatcgggcc      180
tccgggggtcc ctgacagggt cagtggcagt ggatcaggca cagattttac actgaaaatc      240
agcagagtgg aggctgagga tgttgggggt tattattgca tgcaggctct acaaactccg      300
atcaccttcg gccaaaggac acgactggag attaaa      336
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<210> 58

<211> 112

<212> PRT

<213> Artificial

<220>

<223> Antibody

<400> 58

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

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Tyr Ser
          20          25          30

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

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

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

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

Leu Gln Thr Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
```

100

105

110

<210> 59
 <211> 374
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 59
 caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcggagac cctgtccctc 60
 acctgcactg tctctggtgg ctccgtcagc agtggtggtt actactggaa ctggatccgg 120
 cagccccccag ggaagggact ggagtggatt gggatatatca attacagtgg gagcaccaac 180
 tacaaccctt ccctcaagag tcgagtcacc atatcagtag acacgtccaa gaaccagttc 240
 tccctgaagc tgagctctgt gaccgctgcg gacacggccg tgtattactg tgcgagagat 300
 cgagaactgg aactttacta ctactactac ggtatggacg tctggggcca agggaccacg 360
 gtcaccgtct cctc 374

<210> 60
 <211> 124
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 60

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

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

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

Trp Ile Gly Tyr Ile Asn Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser
 50 55 60

Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe

65		70		75		80									
Ser	Leu	Lys	Leu	Ser	Ser	Val	Thr	Ala	Ala	Asp	Thr	Ala	Val	Tyr	Tyr
				85					90					95	

Cys	Ala	Arg	Asp	Arg	Glu	Leu	Glu	Leu	Tyr	Tyr	Tyr	Tyr	Tyr	Gly	Met
			100					105						110	

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

<210> 61
 <211> 374
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 61	
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttctgagac cctgtccctc	60
acctgcactg tctctggtgg ctccgtcagc agtggtggtt actactggaa ctggatccgg	120
cagccccag ggaagggact ggagtggatt gggatatatca attacagtgg gagcaccaac	180
tacaaccct ccctcaagag tcgagtcacc atatcagtag acacgtccaa gaaccagttc	240
tccctgaagc tgagctctgt gaccgctgcg gacacggccg tgtattactg tgcgagagat	300
cgagaactgg aactttacta ctactactac ggtatggacg tctggggcca agggaccacg	360
gtcaccgtct cctc	374

<210> 62
 <211> 124
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 62

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

Thr	Leu	Ser	Leu	Thr	Cys	Thr	Val	Ser	Gly	Gly	Ser	Val	Ser	Ser	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

20

25

30

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

Trp Ile Gly Tyr Ile Asn Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser
 50 55 60

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

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

Cys Ala Arg Asp Arg Glu Leu Glu Leu Tyr Tyr Tyr Tyr Tyr Gly Met
 100 105 110

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

<210> 63
 <211> 336
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 63
 gatattgtga tgactcagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
 atctcctgca ggtctagtca gaggctcctg tatagtaatg gatacaagta tttggattgg 120
 tacctgcaga agccagggca gtctccacag ctcatgatct atttgggttc taatcgggcc 180
 tccgggggtcc ctgacagggt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
 agcagagtgg aggctgagga tggtgggggt tattattgca tgcaggctct acaaactccg 300
 atcaccttcg gccaaaggac acgactggag attaaa 336

<210> 64
 <211> 112
 <212> PRT
 <213> Artificial

<220>

<223> Antibody

<400> 64

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

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Tyr Ser
20 25 30

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

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

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

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

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

<210> 65

<211> 363

<212> DNA

<213> Artificial

<220>

<223> Antibody

<400> 65

caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 60

tcctgtgcag cgtctggatt caccttcagt agctatggca tgcactgggt ccgccaggct 120

ccaggcaagg ggctggagtg ggtggcagtt atatggtatg atggaagtaa taaatactat 180

gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240

ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagcagct 300

cgccttgact actactacgg tatggacgtc tggggccaag ggaccacggt caccgtctcc 360

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

<220>
 <223> Antibody

<400> 66

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

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

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

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

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

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

Ala Arg Ala Ala Arg Leu Asp Tyr Tyr Tyr Gly Met Asp Val Trp Gly
 100 105 110

Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120

<210> 67
 <211> 321
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 67

gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtctcc	60
atcacttgcc gggcaagtca gagcattaac agctatttaa attggtttca gcagaagcca	120
gggaaagccc ctgagctcct gatctttggt gcatccggtt tgcaaagtgg ggtcccatca	180
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcaacag tctgcaacct	240
gaagattttg caacttacta ctgtcaacag agttacagtt ccccgctcac cttcggccaa	300
gggacacgac tggagattaa a	321

<210> 68
 <211> 107
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 68

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

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

Leu	Asn	Trp	Phe	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Gln	Leu	Leu	Ile
	35						40					45			

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

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

Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Ser	Tyr	Ser	Ser	Pro	Leu
				85					90					95	

Thr	Phe	Gly	Gln	Gly	Thr	Arg	Leu	Glu	Ile	Lys
			100					105		

<210> 69
 <211> 351
 <212> DNA

<213> Artificial

<220>

<223> Antibody

<400> 69

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caggtgcagc tacagcagtg gggcgcagga ctgttgaagc cttcggagac cctgtccctc      60
acctgcgctg tctatggtgg gtccttcagt ggttactact ggagctggat ccgccagccc      120
ccagggaagg ggctggagtg gattggggaa atcaatcata gtggaagcac caactacaac      180
ccgtccctca agagtcgagt caccatatca gtagaaacgt ccaagaacca gttctccctg      240
aagctgagct ctgtgaccgc cgcggacacg gctgtgtatt actgtgcgag agataagtgg      300
acctggtact tcgatctctg gggccgtggc accctggtca ctgtctcctc a                351
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<210> 70

<211> 117

<212> PRT

<213> Artificial

<220>

<223> Antibody

<400> 70

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

```
Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Gly Tyr
          20              25              30
```

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

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

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

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

```
Arg Asp Lys Trp Thr Trp Tyr Phe Asp Leu Trp Gly Arg Gly Thr Leu
```

100

105

110

Val Thr Val Ser Ser
115

<210> 71

<211> 339

<212> DNA

<213> Artificial

<220>

<223> Antibody

<400> 71

gacatcgaga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60

atcaactgca ggtccagcca gagtgtttta tacagctcca gcaataggaa ctacttagct 120

tggtaccagc agaaccagg acagcctcct aagctgctca ttctactgggc ttctaccggg 180

gaatccggggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240

atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttatagtact 300

cctcggacgt tcggccaagg gaccaaggtg gaaatcaaa 339

<210> 72

<211> 113

<212> PRT

<213> Artificial

<220>

<223> Antibody

<400> 72

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

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

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

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

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

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

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

Lys

<210> 73
<211> 374
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 73
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagc agtggtggtt actactggag ctggatccgc 120
cagcaccag ggaagggcct ggagtggatg gggaacatct attacagtgg gagcacctac 180
tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctga gaaccagttc 240
tccctgaagc tgaactctgt gactgccgcg gacacggccg tatattactg tgcgagaggg 300
ggaactggaa ccaattacta ctactactac ggtatggacg tctggggcca agggaccacg 360
gtcaccgtct cctc 374

<210> 74
<211> 124
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 74

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

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

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

Trp Met Gly Asn Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Gly Gly Thr Gly Thr Asn Tyr Tyr Tyr Tyr Tyr Gly Met
100 105 110

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

<210> 75
<211> 324
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 75
gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa 120
cctggccagg ctcccaggct cctcatctat ggtgcatcca gctggggcac tggcatccca 180
aacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
cctgaagatt ttgcagtgtg ttactgtcag cagtatggta gctcaccgct cactttcggc 300
ggagggacca aggtggagat caaa 324

<210> 76
<211> 108
<212> PRT

<213> Artificial

<220>

<223> Antibody

<400> 76

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

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

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

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

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

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

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

<210> 77

<211> 377

<212> DNA

<213> Artificial

<220>

<223> Antibody

<400> 77

caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60

acctgcactg tctctggtgt ctccatcagc agtggtggtt actactggag ctggatccgc 120

cagcaccag ggatgggcct ggagtggatt gggtacatct attacagtgg gagcacctac 180

tacaacccgt ccctcaagag tcgagtcacc atatcagaag acacgtctaa gaaccagttc 240

tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagat 300

tccgagtcgc agtatagcag ctgctcgaac tacggtatgg acgtctgggg ccaagggacc 360
acggtcaccg tctcctc 377

<210> 78
<211> 125
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 78

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Asp Ser Glu Ser Glu Tyr Ser Ser Ser Ser Asn Tyr Gly
100 105 110

Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125

<210> 79
<211> 377
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 79
 caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
 acctgcactg tctctgggtgt ctccatcagc agtgggtggtt actactggag ctggatccgc 120
 cagcaccag g gatgggcct ggagtggatt gggtacatct attacagtgg gagcacctac 180
 tacaacccgt ccctcaagag tcgagtcacc atatcagaag acacgtctaa gaaccagttc 240
 tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagat 300
 tccgagtccg agtatagcag ctcgtcgaac tacggtatgg acgtctgggg ccaagggacc 360
 acggtcaccg tctcctc 377

<210> 80
 <211> 125
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 80

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
 50 55 60

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

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

Cys Ala Arg Asp Ser Glu Ser Glu Tyr Ser Ser Ser Ser Asn Tyr Gly
 100 105 110

Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
 115 120 125

<210> 81
 <211> 321
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 81
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagaatcacc 60
 atcacttgcc gggcaagtca gaccattagc agctatttaa attggtatca gcagaaacca 120
 gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaggtgg ggtcccatca 180
 aggttcagtg gcagtgtatc tgggacagat ttcaccctca ccgtcagcag tctgcaacct 240
 gaagattttg caacttacta ctgtcaacag agttacagta acccgctcac tttcggcgga 300
 gggaccaagg tggagatcaa a 321

<210> 82
 <211> 107
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 82

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

Asp Arg Ile Thr Ile Thr Cys Arg Ala Ser Gln Thr Ile Ser Ser Tyr
 20 25 30

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

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

Ser Val Ser Gly Thr Asp Phe Thr Leu Thr Val Ser Ser Leu Gln Pro

65					70						75					80
Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Ser	Tyr	Ser	Asn	Pro	Leu	
				85					90					95		

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

<210> 83
 <211> 371
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 83
 gaggtgcagc tggtgcagtc tggagcagag gtgaaaaagc ccggggagtc tctgaagatc 60
 tcctgtaagg gttctggata cagttttacc agctactgga tcggctgggt gcgccagatg 120
 cccgggaaag gcctggagtg gatggggatc atctatcctg gtgactctga taccagatac 180
 agcccgctcct tccaaggcca ggtcaccatg tcagccgaca agtccatcag taccgcctac 240
 ctgcagctga gcagccatga aggcctcgga caccgccatg tattactgtg cgagacagat 300
 ggctggaaac tacgtacatc acgggtgatc gagacgtcct ggggccaagg gaccacggtc 360
 accgtctcct c 371

<210> 84
 <211> 123
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 84

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

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

Trp	Ile	Gly	Trp	Val	Arg	Gln	Met	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Met	
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	--

35

40

45

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

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

Leu Gln Leu Ser Ser His Glu Gly Leu Gly His Arg His Val Leu Leu
 85 90 95

Cys Glu Thr Asp Gly Trp Lys Leu Arg Thr Ser Arg Val Ile Glu Thr
 100 105 110

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

<210> 85
 <211> 324
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 85
 gaaattgtgt tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagggttatc agcatctact tagcctggta ccagcagaaa 120
 cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
 gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 240
 cctgaagatt ttgcagtgta ttactgtcag cagtatggta gctcaccgtg cagttttggc 300
 caggggacca aactggagat caaa 324

<210> 86
 <211> 108
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 86

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

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

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

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

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

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Cys Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 87
<211> 366
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 87
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagc agtggtgatt actactggag ctggatccgc 120
cagcaccag ggaagggcct ggagtggatt gggtacatct attacagtgg gagcacctac 180
tacaaccgt ccctcaggag tcgagttacc atatcagtag acacgtctaa gaaccagttc 240
tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagcg 300
gattacgatt tttggagtgg ttattttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 88

<211> 122
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 88

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 89
<211> 322
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 89

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60

atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagatacct 120

gggaaagccc ctaagcgct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcaacag cctgcagcct	240
gaagattttg caacttatta ctgtctacag cataatgggt acccgtggac gttcggccaa	300
gggaccaagg tggaatcaa ac	322

<210> 90
 <211> 107
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 90

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

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

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

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

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

Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Leu	Gln	His	Asn	Gly	Tyr	Pro	Trp
			85					90					95		

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

<210> 91
 <211> 366
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 91
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagc agtggtgatt actactggag ctggatccgc 120
cagcaccag ggaagggcct ggagtggatt ggatacatct attacagtgg gagcacctac 180
tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc 240
tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagcg 300
gattacgatt tttggagtgg ttattttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 92
<211> 122
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 92

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 93
<211> 322
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 93
gacttccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca ggacattcga aatgatttag gctgggtatcg gcagaaacct 120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag cataatagtt acccgtggac gttcggccaa 300
gggaccaagg tggaaatcaa ac 322

<210> 94
<211> 107
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 94

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asn Asp
20 25 30

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

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

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro

Asp Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu

35

40

45

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
 50 55 60

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Asn Gly Tyr Phe Asp Tyr Trp
 100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 97
 <211> 321
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 97
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
 atcacttgcc gggcaagtca ggacattaga aatgatttag gctggtatcg gcagaaacct 120
 gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
 gaagattttg caacttatta ctgtctacag cataatagtt acccgtggac gttcggccaa 300
 gggaccaagg tggaaatcaa a 321

<210> 98
 <211> 107
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 98

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asn Asp
20 25 30

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Trp
85 90 95

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

<210> 99
<211> 366
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 99
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc ctacacagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagc agtggtgatt actactggag ctggatccgc 120
cagcaccag ggaagggcct ggagtggatt gggtacatct attacagtgg gagcacctac 180
tacaaccgt ccctcaagag tcgacttacc atatcagtag acacgtctaa gaaccagttc 240
tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagca 300
gattacgatt tttggagtgg ttactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 100

<211> 122
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 100

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 101
<211> 321
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 101

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60

atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120

gggaaagccc ctaagcgct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagattttg caacttatta ctgtctacag cataataatt acccgtggac gttcggccaa	300
gggaccaagg tggaatcaa a	321

<210> 102
 <211> 107
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 102

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

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

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

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

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

Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Leu	Gln	His	Asn	Asn	Tyr	Pro	Trp
				85					90					95	

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

<210> 103
 <211> 366
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 103
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agtggtgatt actactggag ctggatccgc 120
cagcaccag ggaagggcct ggagtggatt gggtagatct attacagtgg gagcacctac 180
tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc 240
tccctgaagt tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagcc 300
gattacgatt tttggagtgg ttatattgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 104
<211> 122
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 104

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 105
<211> 321
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 105
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag cataataatt acccgtggac gttcggccaa 300
gggaccaagg tggaaatcaa a 321

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

<220>
<223> Antibody

<400> 106

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

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

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

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

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro

65					70						75				80
Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Leu	Gln	His	Asn	Asn	Tyr	Pro	Trp
				85					90					95	

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

<210> 107
 <211> 351
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 107
 caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
 acctgcactg tctctggtgg ctccatcagc agtggtgggtt actactggag ctggatccgc 120
 cagcaccag ggaagggcct ggagtggatt gggtacatct attacagtgg gaggacctac 180
 tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc 240
 tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagag 300
 gacgacggta tggacgtctg gggccaaggg accacgggtca ccgtctcctc a 351

<210> 108
 <211> 117
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 108

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Glu Asp Asp Gly Met Asp Val Trp Gly Gln Gly Thr Thr
100 105 110

Val Thr Val Ser Ser
115

<210> 109
<211> 336
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 109
gatattgtga tgactcagtc tccactctcc ctgcccgtca cccctggaga gccggcctcc 60
atttcctgca ggtctagtca gaggctcctg catagtaatg gatacaacta tttggaatgg 120
tacctgcaga agccagggca gtccccacag ttcatgattt atttgggggtc taatcgggcc 180
tccgggggtcc ctgacagggt cagtggcagt ggatcaggca cagattttac actgaaaatc 240
agcagagtgg aggctgagga tgttgggggtt tattactgca tgcaagctct acaaactccg 300
atcaccttcg gccaaaggac acgactggag attaaa 336

<210> 110
<211> 112
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 110

Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly

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

<210> 111
 <211> 366
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 111
 cagggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
 acctgcactg tctctggtgg ctccatcagc agtggtgatt actactggag ctggatccgc 120
 cagtaccag ggaagggcct ggagtggatt gggtacatct attacagtgg gagcacctac 180
 tacaaccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc 240
 tccctgaagc tgaggtctgt gactgccgcg gacacggccg tgtattactg tgcgagagcg 300
 gattacgatt tttggagtgg ttattttgac tactggggcc agggaaccct ggtcaccgtc 360
 tcctca 366

<210> 112
 <211> 122
 <212> PRT

<213> Artificial

<220>

<223> Antibody

<400> 112

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 113

<211> 322

<212> DNA

<213> Artificial

<220>

<223> Antibody

<400> 113

gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60

atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120

gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180

aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag cataatactt acccgtggac gttcggccaa 300
gggaccaagg tggaaatcaa ac 322

<210> 114
<211> 107
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 114

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Thr Tyr Pro Trp
85 90 95

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

<210> 115
<211> 372
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 115

caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcgagac cctgtccctc 60
 acctgcactg tctctggtgg ctccgtcagc agtggtggtt actactggag ctggatccgg 120
 cagccccag ggaagggact ggagtggatt gggatatatct attacagtgg gagcaccaac 180
 tacaaccct ccctcaagag tcgagtcacc atatcagtag acacgtcaa gaaccagttc 240
 tccctgaagc tgagctctgt gaccgctgcg gacacggccg tgtattactg tgcgagagat 300
 ggggacgtgg atacagctat ggtcgatgct tttgatatct ggggccaagg gacaatggtc 360
 accgtctcct ca 372

<210> 116
 <211> 124
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 116

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser
 50 55 60

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

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

Cys Ala Arg Asp Gly Asp Val Asp Thr Ala Met Val Asp Ala Phe Asp
 100 105 110

Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser

115

120

<210> 117
 <211> 324
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 117
 gaaattgtat tgacgcagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 60
 ctctcctgca gggccagtca gagtttaagc ggcaactact tagcctggta ccagcagaag 120
 cctggccagg ctcccaggct catcatctgt ggtgcatcca gcagggccac tggcatccca 180
 gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcac aagactggag 240
 cctgaagatt ttgcagtgtg ttactgtcag cagtatgata ggtcaccgct cactttcggc 300
 ggagggacca aggtggagat caaa 324

<210> 118
 <211> 108
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 118

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

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

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

Ile Cys Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
 50 55 60

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

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asp Arg Ser Pro
85 90 95

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

<210> 119
<211> 366
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 119
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagc agtggtgatt actactggag ctggatccgc 120
cagcaccag ggaagggcct ggagtggatt gggtacatct attacagtgg gagcacctac 180
tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc 240
tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagga 300
gattacgatt tttggagtgg agagtttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 120
<211> 122
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 120

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

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

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 121
<211> 386
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 121
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagc agtggtggtt actactggag ctggatccgc 120
cagcaccag ggaagggcct ggagtggatt gggtacatct atgacagtgg gagcacctac 180
tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc 240
tccctgaagc tgaggtctgt gactgccgcg gacacggccg tgtattactg tgcgagagat 300
caggggcagg acggatacag ctatggttac ggctactact acggtatgga cgtctggggc 360
caagggacca cggtcaccgt ctcctc 386

<210> 122
<211> 128
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 122

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

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

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

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

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

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

Cys Ala Arg Asp Gln Gly Gln Asp Gly Tyr Ser Tyr Gly Tyr Gly Tyr
100 105 110

Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125

<210> 123
<211> 321
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 123
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc aggcgagtca ggacattagc aattatttaa attggtatca gcagaaacca 120
gggaaagccc ctaaactcct gatctacgtt gcatccaatt tggaaacagg ggtcccatca 180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 240
gaagatattg caacatatta ctgtcaacag tgtgataatc tccctctcac tttcggcgga 300
gggaccaagg tggagatcaa a 321

<210> 124
<211> 107
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 124

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

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

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

Tyr Val Ala Ser Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

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

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Cys Asp Asn Leu Pro Leu
85 90 95

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

<210> 125
<211> 365
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 125

caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagc agtggtgatt actactggag ctggatccgc 120
cagcaccag ggaagggcct ggagtggatt ggatacatct attacagtgg gagcacctac 180

tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc 240
tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagcg 300
gattacgatt tttggagtgg ttatTTTgac tactggggcc agggAACcct ggTcaccgtc 360
tcctc 365

<210> 126
<211> 121
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 126

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser
115 120

<210> 127
<211> 322
<212> DNA

<213> Artificial

<220>

<223> Antibody

<400> 127

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gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc      60
atcacttgcc gggcaagtca ggacattaga aatgatttag gctggtatcg gcagaaacct      120
gggaaagccc ctaagcgcct gatctatgct gcatcccgtt tgcaaagtgg ggtcccatca      180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct      240
gaagattttg caacttatta ctgtctacag cataatagtt acccgtggac gttcggccaa      300
gggaccaagg tggaaatcaa ac                                              322
```

<210> 128

<211> 107

<212> PRT

<213> Artificial

<220>

<223> Antibody

<400> 128

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

```
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asn Asp
          20           25           30
```

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

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

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

```
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Trp
          85           90           95
```

```
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
```

100

105

<210> 129
 <211> 366
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 129
 caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
 acctgcactg tctctggtgg ctccatcagc agtggtgatt actactggag ctggatccgc 120
 cagcaccag ggaagggcct ggagtggatt gggtacatct attacagtgg gagcacctac 180
 tacaaccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc 240
 tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagcc 300
 gattacgatt tttggagtgg ttattttgac tactggggcc agggaaccct ggtcaccgtc 360
 tcctca 366

<210> 130
 <211> 122
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 130

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
 50 55 60

Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe

65		70		75		80									
Ser	Leu	Lys	Leu	Ser	Ser	Val	Thr	Ala	Ala	Asp	Thr	Ala	Val	Tyr	Tyr
			85						90				95		

Cys	Ala	Arg	Ala	Asp	Tyr	Asp	Phe	Trp	Ser	Gly	Tyr	Phe	Asp	Tyr	Trp
		100						105					110		

Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser
		115					120		

<210> 131
 <211> 322
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 131	
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca	120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaaatgg ggtcccatca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagattttg caacttatta ctgtctacag cataatagtt acccgtggac gttcggccaa	300
gggaccaagg tggaaatcaa ac	322

<210> 132
 <211> 107
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 132

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Trp
85 90 95

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

<210> 133
<211> 365
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 133
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagc agtggtgatt actactggag ctggatccgc 120
cagcaccag ggaagggcct ggagtggatt gggtagatct attacagtgg gagcacctac 180
tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc 240
tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagcg 300
gattacgatt tttggagtgg ttatattgac tactggggcc aggggaatcct ggtcaccgtc 360
tcctc 365

<210> 134
<211> 121
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 134

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Ile Leu Val Thr Val Ser
115 120

<210> 135
<211> 322
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 135
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatttatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag cataatagtt acccgtggac gttcggccaa 300
gggaccaagg tggaatcaa ac 322

<210> 136
<211> 107
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 136

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Trp
85 90 95

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

<210> 137
<211> 366
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 137

caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagt agtggtgatt actactggag ctggatccgc 120
cagcaccag ggaagggcct ggagtggatt gggtacatct attacagtgg gagcacctac 180

tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc	240
tccctgaagt tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagcc	300
gattacgatt tttggaatgg ttatTTTgac tactggggcc agggaaccct ggtcaccgtc	360
tcctca	366

<210> 138
 <211> 122
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 138

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser	
50 55 60	

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Asn Gly Tyr Phe Asp Tyr Trp	
100 105 110	

Gly Gln Gly Thr Leu Val Thr Val Ser Ser	
115 120	

<210> 139
 <211> 321
 <212> DNA

<213> Artificial

<220>

<223> Antibody

<400> 139

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gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc      60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca      120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca      180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct      240
gaagattttg caacttatta ctgtctacag cataataatt acccgtggac gttcggccaa      300
gggaccaagg tggaaatcaa a                                              321
```

<210> 140

<211> 107

<212> PRT

<213> Artificial

<220>

<223> Antibody

<400> 140

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

```
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
          20           25           30
```

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

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

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

```
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Asn Tyr Pro Trp
          85           90           95
```

```
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
```

<210> 141
 <211> 366
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 141
 caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
 acctgcactg tctctggtgg ctccatcagc agtggtgatt actactggag ctggatccgc 120
 cagcaccag ggaagggcct ggagtggatt gggtacatct attacagtgg gagcacctac 180
 tacaaccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc 240
 tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagcc 300
 gattacgatt tttggagtgg ttattttgac tactggggcc agggaaccct ggtcaccgtc 360
 tcctca 366

<210> 142
 <211> 122
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 142
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly
 20 25 30
 Asp Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
 35 40 45
 Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
 50 55 60
 Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe

65		70		75		80									
Ser	Leu	Lys	Leu	Ser	Ser	Val	Thr	Ala	Ala	Asp	Thr	Ala	Val	Tyr	Tyr
			85						90					95	

Cys	Ala	Arg	Ala	Asp	Tyr	Asp	Phe	Trp	Ser	Gly	Tyr	Phe	Asp	Tyr	Trp
			100					105					110		

Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser
		115					120		

<210> 143
 <211> 322
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 143	
gacatccagc tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca	120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaaatgg ggtcccatca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagattttg caacttatta ctgtctacag cataatagtt acccgtggac gttcggccaa	300
gggaccaagg tggaaatcaa ac	322

<210> 144
 <211> 107
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 144

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Trp
85 90 95

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

<210> 145
<211> 365
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 145
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagc agtggtgatt actactggag ctggatccgc 120
cagtaccag ggaagggcct ggagtggatt gggtacatct attacagtgg gagcacctac 180
tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc 240
tccctgaagc tgggctctgt gactgccgcg gacacggccg tgtattttctg tgcgagagcc 300
gattacgatt tttggagtgg ttattttgac ttctggggcc agggaaccct ggtcaccgtc 360
tcctc 365

<210> 146
<211> 121
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 146

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

Ser Leu Lys Leu Gly Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Phe
85 90 95

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Phe Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser
115 120

<210> 147
<211> 322
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 147
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag cataatgggt acccgtggac gttcggccaa 300
gggaccaagg tggaatcaa ac 322

<210> 148
<211> 107
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 148

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Gly Tyr Pro Trp
85 90 95

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

<210> 149
<211> 365
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 149

caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagc agtggtgatt actactggag ctggatccgc 120
cagtaccag ggaagggcct ggagtggatt gggtacatct attacagtgg gagcacctac 180

tacaaccgt	ccctcaagag	tcgagttacc	atatcagtag	acacgtctaa	gaaccagttc	240
tccctgaagc	tgggctctgt	gactgccgcg	gacacggccg	tgtatttctg	tgcgagagcc	300
gattacgatt	tttgagtg	ttattttgac	ttctggggcc	agggaaccct	ggtcaccgtc	360
tcctc						365

<210>	150
<211>	121
<212>	PRT
<213>	Artificial

<220>
<223> Antibody

<400> 150

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

Ser Leu Lys Leu Gly Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Phe
85 90 95

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Phe Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser
115 120

$\langle 210 \rangle$	151
$\langle 211 \rangle$	322
$\langle 212 \rangle$	DNA

<213> Artificial

<220>

<223> Antibody

<400> 151

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gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc      60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca      120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca      180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct      240
gaagattttg caacttatta ctgtctacag cataatggtt acccgtggac gttcggccaa      300
gggaccaagg tggaaatcaa ac                                              322
```

<210> 152

<211> 107

<212> PRT

<213> Artificial

<220>

<223> Antibody

<400> 152

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

```
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
          20           25           30
```

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

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

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

```
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Gly Tyr Pro Trp
          85           90           95
```

```
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
```

100

105

<210> 153
 <211> 366
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 153
 caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
 acctgcactg tctctggtgg ctccatcagt agtggtgatt actactggag ctggatccgc 120
 cagcaccag ggaagggcct ggagtggatt gggtacatct attacagtgg gagcacctac 180
 tacaaccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc 240
 tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagcg 300
 gattacgatt tttggagtgg ttatcttgac tcctggggcc agggaaccct ggtcaccgtc 360
 tcctca 366

<210> 154
 <211> 122
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

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

65		70		75		80									
Ser	Leu	Lys	Leu	Ser	Ser	Val	Thr	Ala	Ala	Asp	Thr	Ala	Val	Tyr	Tyr
			85						90				95		

Cys	Ala	Arg	Ala	Asp	Tyr	Asp	Phe	Trp	Ser	Gly	Tyr	Phe	Asp	Ser	Trp
		100						105					110		

Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser
		115					120		

<210> 155
 <211> 321
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 155	
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagatacct	120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca	180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	240
gaagattttg caacttatta ctgtctacag cataatgggt acccgtggac gttcggccaa	300
gggaccaagg tggaaatcaa a	321

<210> 156
 <211> 107
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 156

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Gly Tyr Pro Trp
85 90 95

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

<210> 157
<211> 366
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 157
caggttcagc tgggtgcagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttctgggta cacctttacc aactatggta tcagctgggt gcggcaggcc 120
cctggacaag ggcttgagtg gatgggatgg atcagcgctt acgatgggta cagaaactat 180
gcacagaagc tccagggcag agtcaccatg accacagaca catccacgac cactgcctac 240
atggagctga ggagcctgag atctgacgac acggccgtgt attactgtgc gagagatggt 300
caagactacg gtgactacga ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 158
<211> 122
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 158

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 Asn Tyr
20 25 30

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

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

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

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

Ala Arg Asp Val Gln Asp Tyr Gly Asp Tyr Asp Tyr Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 159
<211> 321
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 159
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gagcattagc agttatttaa attggtatca gcagaaacca 120
gggaaagccc ctaacctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
agattcaggg gcagtggatc tgggacagat ttactctca ccatcagcag tctgcaacct 240
gaagattttg caacttacta ctgtcaacag agttacagta ccccatcac cttcggccaa 300
gggacacgac tggagattaa a 321

<210> 160
<211> 107
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 160

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
20 25 30

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Ile
85 90 95

Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
100 105

<210> 161
<211> 366
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 161

caggtgcagc tgcaggagtc gggcccagga ctggtgaagc ctttacagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagc agtggtgatt actactggag ctggatccgc 120
cagcaccag ggaagggcct ggagtggatt gggtacatct attacagtgg gaccacctac 180

tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc	240
gccctgaagc tgaactctgt gactgccgcg gacacggccg tgtattactg tgcgagagcc	300
gattacgatt tttggagtgg ttatTTTgac tactggggcc agggAACcct ggTcaccgtc	360
tcctca	366

<210> 162
 <211> 122
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 162

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Thr Thr Tyr Tyr Asn Pro Ser	
50 55 60	

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp	
100 105 110	

Gly Gln Gly Thr Leu Val Thr Val Ser Ser	
115 120	

<210> 163
 <211> 322
 <212> DNA

<213> Artificial

<220>

<223> Antibody

<400> 163

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gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc      60
atcacttgcc gggcaggta gggcattaga aatgatttag gctggtatca gcagaaacca      120
gggaaagccc ctcagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca      180
aggttcagcg gcagtggatc tgggacagaa ttctctctca caatctccag cctgcagcct      240
gaagattttg caacttatta ctgtctacag cataatagtt acccgtggac gttcggccaa      300
gggaccaagg tggaaatcaa ac                                              322
```

<210> 164

<211> 107

<212> PRT

<213> Artificial

<220>

<223> Antibody

<400> 164

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

```
Asp Arg Val Thr Ile Thr Cys Arg Ala Gly Gln Gly Ile Arg Asn Asp
          20           25           30
```

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

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

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

```
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Trp
          85           90           95
```

```
Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
```

<210> 165
 <211> 369
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 165
 caggtgcagc tgggtggagtc tggggggaggc ttggtcaagc ctggagggtc cctgagactc 60
 tcctgtgcag cctctggatt caccttcagt gactactaca tgagctggat ccgccaggct 120
 ccagggaagg ggctggagtg ggtttcatat attagtagta gtggtaataa catataccac 180
 gcagactctg tgaagggccg attcaccatc tccagggaca acgccaagaa ctactgtat 240
 ctgcaaatga acagcctgag agccgaggac acggccgtgt attactgtgc gagagagaga 300
 tatagtggtc acgacgaccc tgatggtttt gatatctggg gccaaaggac aatggtcacc 360
 gtctcttca 369

<210> 166
 <211> 123
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 166
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Tyr
 20 25 30
 Tyr Met Ser Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Tyr Ile Ser Ser Ser Gly Asn Asn Ile Tyr His Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr

65		70		75		80									
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85						90					95	

Ala	Arg	Glu	Arg	Tyr	Ser	Gly	Tyr	Asp	Asp	Pro	Asp	Gly	Phe	Asp	Ile
			100					105					110		

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

<210> 167
 <211> 321
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 167	
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	60
atcacttgcc aggcgagtc ggacattagc aactatttaa gttggtttca gcagaaacca	120
gggaaagccc ctaagctcct gatccacgat gcatccaatt tggaacagg ggtcccttca	180
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct	240
gaagatattg caacatatta ctgtcaacag tatgataatc ccccgtagcag ttttggccag	300
gggaccaagc tggagatcaa a	321

<210> 168
 <211> 107
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 168

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

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

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

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

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

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Tyr Asp Asn Pro Pro Cys
85 90 95

Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 169
<211> 366
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 169
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagc agtgggttatt actactggag ctggatccgc 120
cagcaccag ggaagggcct ggagtggatt gggtacatct attacagtgg gaccacctac 180
tacaatccgt ccttcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc 240
tccctgaaac tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagcc 300
gattacgatt tttggagtgg tcactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcctca 366

<210> 170
<211> 122
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 170

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Thr Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly His Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 171
<211> 321
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 171
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg caacttatta ctgtctacag cataatagtt acccgtggac gttcggccaa 300
gggaccaagg tggaatcaa a 321

<210> 172
<211> 107
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 172

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Trp
85 90 95

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

<210> 173
<211> 365
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 173

caggttcagc tgggtgcagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 60
tcctgcaagg cttctggtta cacctttacc agctatggta tcagctgggt gcgacaggcc 120
cctggacaag gacttgagtg gatgggatgg atcagcgctt acgatggtca cacaaactat 180

gcacagaagc tccagggcag agtcaccatg accacagaca catccacgaa cacagcctac	240
atggagctga ggagcctgag atctgacgac acggccgttt attactgtgc gagagacccc	300
catgactaca gtaactacga ggcttttgac ttctggggcc aggggaaccct ggtcaccgtc	360
tcctc	365

<210>	174
<211>	121
<212>	PRT
<213>	Artificial

<220>
<223> Antibody

<400> 174

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

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

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

Gly Trp Ile Ser Ala Tyr Asp Gly His Thr Asn Tyr Ala Gln Lys Leu
50 55 60

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

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

Ala Arg Asp Pro His Asp Tyr Ser Asn Tyr Glu Ala Phe Asp Phe Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser
115 120

$\langle 210 \rangle$	175
$\langle 211 \rangle$	519
$\langle 212 \rangle$	DNA

<213> Artificial

<220>

<223> Antibody

<400> 175

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atgagggtccc ctgctcagct cctggggctc ctgctactct ggctccgagg tgccagatgt      60
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc      120
atcacttgcc gggcaagtca gagcattagc agttatttaa attggtatca gcagaaacca      180
gggaaagccc ctaacctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca      240
agattcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct      300
gaagattttg caacttacta ctgtcaacag agttacagta ccccatcac cttcggccaa      360
gggacacgac tggagattaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcca      420
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat      480
cccagagagg ccaaagtaca gtggaaggtg gataacgcc                                519
```

<210> 176

<211> 107

<212> PRT

<213> Artificial

<220>

<223> Antibody

<400> 176

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

```
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
          20          25          30
```

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Ile
85 90 95

Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
100 105

<210> 177
<211> 534
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 177
accatggact ggacctggag ggtccttttc ttggtggcag cagcaacagg tgcccactcc 60
caggttcagc tgggtgcagtc tggagctgag gtgaagaagc ctggggcctc agtgaaggtc 120
tcctgcaagg cttctgggta cacctttacc aactatggta tcagctgggt gcggcaggcc 180
cctggacaag ggcttgagtg gatgggatgg atcagcgctt acgatgggta cagaaactat 240
gcacagaagc tccagggcag agtcaccatg accacagaca catccacgac cactgcctac 300
atggagctga ggagcctgag atctgacgac acggccgtgt attactgtgc gagagatggt 360
caagactacg gtgactacga ctactttgac tactggggcc agggaaccct ggtcaccgtc 420
tcctcagctt ccaccaaggg cccatccgtc ttccccctgg tgccctgctc caggagcacc 480
tccgagagca cagccgccct gggctgcctg gtcaaggact acttccccga accg 534

<210> 178
<211> 122
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 178

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 Asn Tyr
20 25 30

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

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

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

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

Ala Arg Asp Val Gln Asp Tyr Gly Asp Tyr Asp Tyr Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 179
<211> 504
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 179
cagctcctgg ggctcctgct actctggctc cgaggtgccca gatgtgacat ccagatgacc 60
cagctcccat cctccctgtc tgcattctgta ggagacagag tcaccatcac ttgccgggca 120
agtcagagca ttagcagtta tttaaattgg tatcagcaga aaccagggaa agcccctaac 180
ctcctgatct atgctgcatc cagtttgcaa agtgggggtcc catcaagatt cagtggcagt 240
ggatctggga cagatttcac tctcaccatc agcagtctgc aacctgaaga ttttgcaact 300
tactactgtc aacagagtta cagtaccccc atcaccttcg gccaaaggac acgactggag 360
attaaacgaa ctgtggctgc accatctgtc ttcattcttc cgccatctga tgagcagttg 420
aaatctggaa ctgcctctgt tgtgtgcctg ctgaataact tctatcccag agaggccaaa 480
gtacagtgga aggtggataa cgcc 504

<210> 180

<211> 107
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 180

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
20 25 30

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Ile
85 90 95

Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
100 105

<210> 181
<211> 493
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 181

catctgtggt tcttcctcct gctggtggca gctcccagat gggtcctgtc ccaggtgcag 60
ctgcaggagt cgggccagg actggtgaag ccttcacaga ccctgtccct cacctgcact 120
gtctctggtg gtcctcatca cagtggatgat tactactgga gctggatccg ccagcaccca 180
gggaagggcc tggagtggat tgggtacatc tattacagtg ggagcaccta ctacaaccg 240

tccctcaaga gtcgagttac catatcagta gacacgtcta agaaccagtt ctccctgaag 300
 ctgagctctg tgactgccgc ggacacggcc gtgtattact gtgcgagagc agattacgat 360
 ttttggagtg gttactttga ctactggggc cagggaaccc tggtcaccgt ctcctcagcc 420
 tccaccaagg gcccatcggc cttccccctg gcaccctcct ccaagagcac ctctgggggc 480
 acaacggccc tgg 493

<210> 182
 <211> 122
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 182

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
 50 55 60

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp
 100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 183

<211> 518
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 183
atgagggtcc ctgctcagct cctggggctc ctgctgctct gggtcccagg tgccaggtgt 60
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 120
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggatatca gcagaaacca 180
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 240
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 300
gaagattttg caacttatta ctgtctacag cataatagtt acccgtggac gttcggccaa 360
gggaccaagg tggaaatcaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcca 420
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 480
cccagagagg ccaaagtaca gtggaaggtg gataacgc 518

<210> 184
<211> 107
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 184

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

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

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

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

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro

65					70						75				80
Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Leu	Gln	His	Asn	Ser	Tyr	Pro	Trp
				85					90					95	

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

<210> 185
 <211> 436
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 185
 tggttcttcc ttctgctggt ggcagctccc agatgggtcc tgtcccaggt gcagctgcag 60
 gagtcgggcc caggactggt gaagccttca cagaccctgt ccctcacctg cactgtctct 120
 ggtggctcca tcagcagtgg tggttactac tggagctgga tccgccagca cccaggggaag 180
 ggcctggagt ggattgggta catctattac agtgggagca cctactacaa cccgtccctc 240
 aagagtcgag ttaccatatt agtagacacg tctaagaacc agttctccct gaagctgagc 300
 tctgtgactg ccgcggacac ggccgtgtat tactgtgcga gagatggcta tgatagtagt 360
 gggtattacc acggctactt tgactactgg ggccagggaa ccctggtcac cgtctcctca 420
 gcctccacca agggcc 436

<210> 186
 <211> 125
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 186

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Asp Gly Tyr Asp Ser Ser Gly Tyr Tyr His Gly Tyr Phe
100 105 110

Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 187
<211> 521
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 187
caggctttca tttctctgtt gctctggatc tctggtgcct acggggacat cgtgatgacc 60
cagtctccag actccctggc tgtgtctctg ggcgagaggg ccaccatcaa ctgcaagtcc 120
agccagagtg ttttatacag ctccaacaat aagaactact tagcttggtta ccagcagaaa 180
ccaggacagc ctcctaagct gctcatttac tgggcatcta cccgggaatc cggggtcctt 240
gaccgattca gtggcagcgg gtctgggaca gatttcactc tcaccatcag cagcctgcag 300
gctgaagatg tggcagttta ttactgtcag caatattata gtactccgct cactttcggc 360
ggagggacca aggtggagat caaacgaact gtggctgcac catctgtctt catcttcccg 420
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc 480
tatcccagag aggccaaagt acagtggaag gtggataacg c 521

<210> 188

<211> 113
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 188

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

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

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

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

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

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

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

Lys

<210> 189
<211> 455
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 189

ctgtggttct tcctcctgct ggtggcagct cccagatggg tcctgtccca ggtgcagctg 60

caggagtcgg gcccaggact ggtgaagcct tcacagaccc tgtccctcac ctgcactgtc 120

<210> 191
<211> 442
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 191
gtgcccgctc agcgcctggg gctcctgctg ctctggttcc caggtgccag gtgtgacatc 60
cagatgaccc agtctccatc ctccctgtct gcatctgtag gagacagagt caccatcact 120
tgccgggcaa gtcagggcat tagaaatgat ttaggctggt atcagcagaa accagggaaa 180
gcccctaagc gcctgatcta tgctgcatcc agtttgcaaa gtgggggtccc atcaaggttc 240
agcggcagtg gatctgggac agaattcact ctacacaatca gcagcctgca gcctgaagat 300
tttgcaactt attactgtct acagcataat aattaccgtt ggacgttcgg ccaagggacc 360
aaggtggaaa tcaaacgaac tgtggctgca ccatctgtct tcattctccc gccatctgat 420
gagcagttga aatctggaac tg 442

<210> 192
<211> 107
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 192

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

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

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

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

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro

65					70						75				80
Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Leu	Gln	His	Asn	Asn	Tyr	Pro	Trp
				85					90					95	

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

<210> 193
 <211> 427
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 193	
tggttcttcc ttctgctggt ggcagctccc agatgggtcc tgtcccaggt gcagctgcag	60
gagtcgggcc caggactggt gaagccttca cagaccctgt ccctcacctg cactgtctct	120
ggtggctcca tcagcagtgg tgattactac tggagctgga tccgccagca cccaggggaag	180
ggcctggagt ggattgggta catctattac agtgggagca cctactacaa cccgtccctc	240
aagagtcgag ttaccatatt agtagacacg tctaagaacc agttctccct gaagctgagc	300
tctgtgactg ccgcggacac ggccgtgtat ttctgtgcga gagccgatta cgatTTTTTgg	360
agtgggttatt ttgactactg gggccaggga accctgggtca ccgtctcctc agcctccacc	420
aagggcc	427

<210> 194
 <211> 122
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 194

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 195
<211> 518
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 195
atgagggtcc ccgctcagct cctggggctc ctgctgctct gggtcccagg tgccaggtgt 60
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 120
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 180
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 240
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 300
gaagattttg caacttatta ctgtctacag cataatactt acccgtggac gttcggccaa 360
gggaccaagg tggaaatcaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcca 420
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 480
cccagagagg ccaaagtaca gtggaaggtg gataacgc 518

<210> 196

<211> 107
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 196

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Thr Tyr Pro Trp
85 90 95

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

<210> 197
<211> 428
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 197

tggttcttcc ttctgctggt ggcagctccc agatgggtcc tgtcccaggt gcagctgcag 60
gagtcgggcc caggactggt gaagccttca cagaccctgt ccctcacctg cactgtctct 120
ggcctggagt ggattgggta catctattac agtgggagca cctactacaa cccgtcctc 180
ggcctggagt ggattgggta catctattac agtgggagca cctactacaa cccgtcctc 240

aagagtcgag ttaccatata agtagacacg tctaagaacc agttctccct gaagctgagc 300
tctgtgactg ccgcggacac ggccgtgtat ttctgtgcga gagccgatta cgatttttgg 360
aatggttatt ttgactactg gggccaggga accctgggtca ccgtctcctc agcctccacc 420
aagggcc 428

<210> 198
<211> 122
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 198

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Asn Gly Tyr Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 199
<211> 519
<212> DNA

<213> Artificial

<220>

<223> Antibody

<400> 199

atgagggtcc ccgctcagct cctggggctc ctgctgctct ggttcccagg tgccaggtgt	60
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	120
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca	180
gggaaagccc ctaagcgcct gatctatgct gcttccagtt tgcaaagtgg ggtcccatca	240
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	300
gaagattttg caacttatta ctgtctacag cataatactt acccgtggac gttcggccaa	360
gggaccaagg tggaaatcaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcca	420
tctgatgagc agttgaaatc tggaaactgcc tctgttgtgt gcctgctgaa taacttctat	480
cccagagagg ccaaagtaca gtggaaggtg gataacgcc	519

<210> 200

<211> 107

<212> PRT

<213> Artificial

<220>

<223> Antibody

<400> 200

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Thr Tyr Pro Trp
85 90 95

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

<210> 201
<211> 398
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 201
ttggtggcag cagctacagg caccacgcc caggtccagc tgggtacagtc tggggctgag 60
gtgaagaagc ctggggcctc agtgaaggtc tcctgcaagg tttccggata caccctcact 120
gaattatcca tgtactgggt gcgacaggct cctggaaaag ggcttgagtg gatgggaggt 180
tttgatcctg aagatggtga aacaatctac gcacagaagt tccagggcag agtcaccatg 240
accgaggaca catctacaga cacagcctac atggagctga gcagcctgag atctgaggac 300
acggccgtgt attactgtgc aactgggtgg aactacgtct ttgactactg gggccaggga 360
accctggtca ccgtctcctc agcctccacc aagggcc 398

<210> 202
<211> 117
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 202

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 Val Ser Gly Tyr Thr Leu Thr Glu Leu
20 25 30

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

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

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

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

Ala Thr Gly Trp Asn Tyr Val Phe Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 203
<211> 388
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 203
ggatccagtg gggatattgt gatgactcag tctccactct ccctgcccgt cacccttgga 60
gagccggcct ccattctctg caggtccagt cagagcctcc tgcataagtaa tggatacaac 120
tatttggatt ggtacctgca gaagccaggg cagtctccac agctcctgat ctatttggat 180
tctcatcggg cctccgggggt ccctgacagg ttcagtggca gtggatcagg cacagatttt 240
aactgaaaa tcagcagagt ggaggctgag gatgttggggg ttattactg catgcaagct 300
ctacaaactc cgctcacttt cggcggaggg accaaggtgg agatcaaacg aactgtggct 360
gcaccatctg tcttcatctt cccgccat 388

<210> 204
<211> 112
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 204

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

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
20 25 30

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

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

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

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

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

<210> 205
<211> 446
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 205
tggttcttcc ttctgctggt ggcagctccc agatgggtcc tgtcccaggt gcagctgcag 60
gagtcgggcc caggactggt gaagccttca cagaccctgt ccctcacctg cactgtctct 120
ggtggctcca tcagcagtgg tgattactac tggagctgga tccgccagca cccaggaag 180
ggcctggagt ggattgggta catctattac agtgggagca cctactacaa cccgtccctc 240
aagagtcgag ttaccatatc agtagacacg tctaagaacc agttctcct gaagctgagc 300
tctgtgactg ccgcggacac ggccgtgtat ttctgtgcga gagccgatta cgatttttgg 360
agtggttatt ttgactactg gggccaggga accctggtca ccgtctcctc agcctccacc 420
aagggcccat cgagtcttcc ccctgg 446

<210> 206
<211> 122
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 206

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 207
<211> 519
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 207

atgagggtcc ccgctcagct cctggggctc ctgctgctct gggtcccagg tgccagggtgt

60

gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	120
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca	180
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca	240
aggttcagcg gcagtggatc tgggacaaaa ttcactctca ctatcagcag cctgcagcct	300
gaagattttg caacttatta ctgtctacag cataatactt acccgtggac gttcggccaa	360
gggaccaagg tggaaatcag acgaactgtg gctgcaccat ctgtcttcat cttcccgcc	420
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat	480
cccagagagg ccaaagtaca gtggaaggtg gataacgcc	519

<210> 208
 <211> 107
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 208

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

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

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

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

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

Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Leu	Gln	His	Asn	Thr	Tyr	Pro	Trp
				85					90					95	

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

<210> 209
<211> 564
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 209
accatgaaac atctgtggtt cttcctcctg ctggtggcag ctcccagatg ggtcctgtcc 60
caggtgcagc tgcaggagtc gggcccagga ctggtgaagc cttcacagac cctgtccctc 120
acctgcactg tctctggtgg ctccatcagc agtggtgatt actactggag ctggatccgc 180
cagcaccag ggaagggcct ggagtggatt gggtacatct attacagtgg gagcacctac 240
tacaacccgt ccctcaagag tcgagttacc atatcagtag acacgtctaa gaaccagttc 300
tccctgaagc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagcg 360
gattacgatt tttggagtgg ttattttgac tactggggcc agggaatcct ggtcaccgtc 420
tcctcagcct ccaccaaggg cccatcggtc ttccccctgg caccctcctc caagaacacc 480
tctgggggca cagcggccct gggctgcctg gtcaaggact acttccccga accggtgacg 540
gtgtcctgga actcaggcgc cctg 564

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

<220>
<223> Antibody

<400> 210

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser

50

55

60

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Ile Leu Val Thr Val Ser Ser
115 120

<210> 211
<211> 519
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 211
atgagggtcc ccgctcagct cctggggctc ctgctgctct gggtcccagg tgccagggtgt 60
gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 120
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 180
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 240
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 300
gaagattttg caacttatta ctgtctacag cataatagtt acccgtggac gttcggccaa 360
gggaccaagg tggaaatcaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcc 420
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 480
cccagagagg ccaaagtaca gtggaaggtg gataacgcc 519

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

<220>
<223> Antibody

<400> 212

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Trp
85 90 95

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

<210> 213

<211> 432

<212> DNA

<213> Artificial

<220>

<223> Antibody

<400> 213

tggttcttcc ttctgctggt ggcagctccc agatgggtcc tgtcccaggt gcagctgcag	60
gagtcgggcc caggactggt gaagccttca cagaccctgt ccctcacctg cactgtctct	120
ggtggctcca tcagcagtgg tgattactac tggagctgga tccgccagca cccaggaag	180
ggcctggagt ggattggata catctattac agtgggagca cctactacaa ttcgtcctc	240
aagagtcgag ttaccatatc agtagacacg tctaagaacc agttctcct gaagctgagc	300
tctgtgactg ccgcggacac ggccgtgtat tactgtgcga gagcggatta cgatttttg	360
agtggttatt ttgactactg gggccaggga accctggtca ccgtctcctc agcctccacc	420

<210> 214
 <211> 122
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 214

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Ser Ser
 50 55 60

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp
 100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 215
 <211> 372
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 215

ggtgccaggt gtgacatcca gatgaccag tctccatcct ccctgtctgc atctgtagga 60
 gacagagtca ccatcacttg ccgggcaagt cagggcatta gaaatgattt aggctggtat 120
 cagcagaaac ctgggaaagc ccctaagcgc ctgatctatg ctgcatccag ttgcaaagt 180
 ggggtcccat caaggttcag cggcagtgga tctgggacag aattcactct cacaatcagc 240
 agcctgcagc ctgaagattt tgcaacttat tactgtctac agcacaatag ttaccctggg 300
 acgttcggcc aagggaccaa ggtggaaatc aaacgaactg tggctgcacc atctgtcttc 360
 atcttcccgc ca 372

<210> 216
 <211> 107
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 216

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Trp
 85 90 95

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

<210> 217

<211> 548
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 217
aggttcttcc ttctgctggt ggcagctccc agatgggtcc tgtcccaggt gcagctgcag 60
gagtcgggcc caggactggt gaagccttca cagaccctgt ccctcacctg cactgtctct 120
ggtggctcca tcagcagtgg tgattactac tggagctgga tccgccagca cccaggaag 180
ggcctggagt ggattggata catctattac agtgggagca cctactacaa cccgtccctc 240
aagagtcgag ttaccatatt agtagacacg tctaagaacc agttctccct gaagctgagc 300
tctgtgactg ccgcggacac ggccgtgtat tactgtgcga gagccgatta cgatttttgg 360
agtggttatt ttgactactg gggccaggga accctgggtca ccgtctcctc agcctccacc 420
aagggcccat cggctcttccc cctggcaccc tcctccaaga gcacctctgg gggcacagcg 480
gccctgggct gcctgggtcaa ggactacttc cccgaaccgg tgacggtgtc gtggaactca 540
ggcgccct 548

<210> 218
<211> 122
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 218
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly
20 25 30
Asp Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
35 40 45
Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 219
<211> 517
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 219
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gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 120
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 180
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 240
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 300
gaagattttg caacttatta ctgtctacag cataatagtt acccgtggac gttcggccaa 360
gggaccaagg tggaaatcaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcca 420
tctgatgagc agttgaaatc tggaactgcc tctgtttgtgt gcctgctgaa taacttctat 480
cccagagagg ccaaagtaca gtggaagggtg gataacg 517

<210> 220
<211> 107
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 220

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

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

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Trp
 85 90 95

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

<210> 221
 <211> 446
 <212> DNA
 <213> Artificial

<220>
 <223> Antibody

<400> 221
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 caggagtcgg gcccaggact ggtgaagcct tcacagaccc tgtccctcac ctgcactgtc 120
 tctggtggct ccatcagcag tggtgattac tactggagct ggatccgcca gcacccaggg 180
 aagggcctgg agtggattgg gtacatctat tacagtggga gcacctacta caaccgtcc 240
 ctcaagagtc gagttacat gtcagtagac acgtctaaga accagttctc cctgaagctg 300
 agctctgtga ctgccgcgga cacggccgtg tattactgtg cgagagccga ttacgatttt 360
 tggagtggtc actttgactg ctggggccag ggaaccctgg tcaccgtctc ctcagcttcc 420
 accaagggcc ccatccgtct tcccc 446

<210> 222
<211> 122
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 222

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly His Phe Asp Cys Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 223
<211> 419
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 223

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60

gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc	120
atcacttgcc gggcaagtca gggcattaga gatgatttag gctggtatca gcagaaacca	180
gggaaagccc ctaagcgcct gatctatgct gaatccagtt tgcaaagtgg ggtcccatca	240
aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct	300
gaagattttg caacttatta ctgtctacag catcatagtt acccgtggac gttcggccaa	360
gggaccaagg tggaaatcaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcc	419

<210> 224
 <211> 107
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 224

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

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

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

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

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

Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Leu	Gln	His	His	Ser	Tyr	Pro	Trp
			85					90					95		

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

<210> 225
 <211> 504
 <212> DNA

<213> Artificial

<220>

<223> Antibody

<400> 225

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tctggattca cttcaatag ctatgacatg cactgggtcc gccaggctcc aggcaagggg	180
ctggagtggg tggcagttat atggtatgat ggaagtaata aatactatgc agactccgtg	240
aagggccgat tcaccatctc tagagacaat tccaagaaca cgctgtatct gcaaatgaac	300
agcctgagag ccgaggacac ggctgtgtat tactgtgcga gagaccgctt gtgtactaat	360
ggtgtatgct atgaagacta cggtatggac gtctggggcc aagggaccac ggtcaccgtc	420
tcctcagctt ccaccaaggg cccatccgtc ttccccctgg cgccctgctc caggagcacc	480
tccgagagca cagccgccct gggc	504

<210> 226

<211> 126

<212> PRT

<213> Artificial

<220>

<223> Antibody

<400> 226

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

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

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

Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 227
<211> 504
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 227
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gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 120
atcacttgcc aggcgagtc ggacattagc aactatttaa attggtatca gcagaaacca 180
gggaaagccc ctaaggctct gatctacgat gcatccaatt tggaacagg ggtcccatca 240
aggttcagtg gaagtggatc tgggacagat tttactttca ccatcagcag cctgcagcct 300
gaagatgttg caacatatta ctgtcaacac tatgatactc tcccgctcac tttcggcgga 360
gggaccaagg tggagatcaa acgaactgtg gctgcacat ctgtcttcat cttcccgcga 420
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 480
cccagagagg ccaaagtaca gtgg 504

<210> 228
<211> 107
<212> PRT
<213> Artificial

<220>
<223> Antibody

<400> 228

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

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

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

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

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

Glu Asp Val Ala Thr Tyr Tyr Cys Gln His Tyr Asp Thr Leu Pro Leu
85 90 95

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

<210> 229
<211> 472
<212> DNA
<213> Artificial

<220>
<223> Antibody

<400> 229
ggactgtgca agaacatgaa acacctgtgg ttcttcctcc tgctggtggc agctcccaga 60
tgggtcctgt cccagggtgca gctgcaggag tcgggcccag gactggtgaa gcctttacag 120
accctgtccc tcacctgcac tgttctctggt ggctccatca gcagtgggtga ttactactgg 180
agctggatcc gccagcaccc aggggaagggc ctggagtgga ttgggtacat ctattacagt 240
gggaccacct actacaaccc gtccctcaag agtcgagtta ccatatcagt agacacgtct 300
aagaaccagt tcgccctgaa gctgaactct gtgactgccg cggacacggc cgtgtattac 360
tgtgcgagag ccgattacga tttttggagt ggttattttg actactgggg ccagggaacc 420
ctggtcaccg tctcctcagc ttccaccaag ggcccatccg tcttccccct gg 472

<210> 230
<211> 122
<212> PRT

<213> Artificial

<220>

<223> Antibody

<400> 230

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

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

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

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Thr Thr Tyr Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 231

<211> 531

<212> DNA

<213> Artificial

<220>

<223> Antibody

<400> 231

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gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 120

atcacttgcc gggcaggtca gggcattaga aatgatttag gctggtatca gcagaaacca 180

gggaaagccc ctcagcgct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 240
 aggttcagcg gcagtggatc tgggacagaa ttctctctca caatctccag cctgcagcct 300
 gaagattttg caacttatta ctgtctacag cataatagtt acccgtggac gttcggccaa 360
 gggaccaagg tggaaatcaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcca 420
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 480
 cccagagagg ccaaagtaca gtggaaggtg gataacgccc ttccaatcgg g 531

<210> 232
 <211> 107
 <212> PRT
 <213> Artificial

<220>
 <223> Antibody

<400> 232

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Gly Gln Gly Ile Arg Asn Asp
 20 25 30

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Trp
 85 90 95

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

<210> 233
 <211> 26
 <212> DNA

<213> Artificial

<220>

<223> Primer

<220>

<221> prim_transcript

<222> (1)..(26)

<400> 233

cgggatccat gtcctagcct aggggc

26

<210> 234

<211> 39

<212> DNA

<213> Artificial

<220>

<223> Primer

<220>

<221> prim_transcript

<222> (1)..(39)

<400> 234

gctctagatt aatgatgatg atgatgatgt tgtcctaaa

39

<210> 235

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U1-1 CDR-1-h

<400> 235

Gly Gly Ser Ile Asn Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 236

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U1-1 CDR-2-h

<400> 236

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

<210> 237
<211> 12
<212> PRT
<213> Artificial

<220>
<223> U1-1 CDR-3-h

<400> 237

Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr
1 5 10

<210> 238
<211> 11
<212> PRT
<213> Artificial

<220>
<223> U1-1 CDR-1-l

<400> 238

Arg Ala Ser Gln Gly Ile Arg Asn Asp Leu Gly
1 5 10

<210> 239
<211> 7
<212> PRT
<213> Artificial

<220>
<223> U1-1 CDR-2-l

<400> 239

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 240
<211> 9
<212> PRT
<213> Artificial

<220>
<223> U1-1 CDR-3-l

<400> 240

Leu Gln His Asn Ser Tyr Pro Trp Thr
1 5

<210> 241

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U 1 - 2-CDR-1h

<400> 241

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 242

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U 1 - 2-CDR-2h

<400> 242

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

<210> 243

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U 1 - 2-CDR-3h

<400> 243

Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr
1 5 10

<210> 244

<211> 11

<212> PRT

<213> Artificial

<220>

<223> U 1 - 2-CDR-11

<400> 244

Arg Ala Ser Gln Gly Ile Arg Asn Asp Leu Gly
1 5 10

<210> 245

<211> 7

<212> PRT

<213> Artificial

<220>

<223> U 1 - 2-CDR-21

<400> 245

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 246

<211> 9

<212> PRT

<213> Artificial

<220>

<223> U 1 - 2-CDR-31

<400> 246

Leu Gln His Asn Gly Tyr Pro Trp Thr
1 5

<210> 247

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U 1 - 3-CDR-1-h

<400> 247

Gly Gly Ser Ile Ser Ser Gly Gly Tyr Tyr Trp Ser
1 5 10

<210> 248

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U 1 - 3-CDR-2h

<400> 248

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

<210> 249

<211> 15

<212> PRT

<213> Artificial

<220>

<223> U 1 - 3-CDR-3h

<400> 249

Asp	Gly	Tyr	Asp	Ser	Ser	Gly	Tyr	Tyr	His	Gly	Tyr	Phe	Asp	Tyr
1				5					10					15

<210> 250

<211> 17

<212> PRT

<213> Artificial

<220>

<223> U 1 - 3-CDR-11

<400> 250

Lys	Ser	Ser	Gln	Ser	Val	Leu	Tyr	Ser	Ser	Asn	Asn	Lys	Asn	Tyr	Leu
1				5					10					15	

Ala

<210> 251

<211> 7

<212> PRT

<213> Artificial

<220>

<223> U 1 - 3-CDR-21

<400> 251

Trp Ala Ser Thr Arg Glu Ser

1 5

<210> 252
<211> 9
<212> PRT
<213> Artificial

<220>
<223> U 1 - 3-CDR-3l

<400> 252

Gln Gln Tyr Tyr Ser Thr Pro Leu Thr
1 5

<210> 253
<211> 12
<212> PRT
<213> Artificial

<220>
<223> U 1 - 4-CDR-1h

<400> 253

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 254
<211> 16
<212> PRT
<213> Artificial

<220>
<223> U 1 - 4-CDR-2h

<400> 254

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

<210> 255
<211> 12
<212> PRT
<213> Artificial

<220>
<223> U 1 - 4-CDR-3h

<400> 255

Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr
1 5 10

<210> 256
<211> 11
<212> PRT
<213> Artificial

<220>
<223> U 1 - 4-CDR-11

<400> 256

Arg Ala Ser Gln Gly Ile Arg Asn Asp Leu Gly
1 5 10

<210> 257
<211> 7
<212> PRT
<213> Artificial

<220>
<223> U 1 - 4-CDR-21

<400> 257

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 258
<211> 9
<212> PRT
<213> Artificial

<220>
<223> U 1 - 4-CDR-31

<400> 258

Leu Gln His Asn Asn Tyr Pro Trp Thr
1 5

<210> 259
<211> 12
<212> PRT
<213> Artificial

<220>
<223> U 1 - 5-CDR-1h

<400> 259

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 260

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U 1 - 5-CDR-2h

<400> 260

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

<210> 261

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U 1 - 5-CDR-3h

<400> 261

Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr
1 5 10

<210> 262

<211> 11

<212> PRT

<213> Artificial

<220>

<223> U 1 - 5-CDR-11

<400> 262

Arg Ala Ser Gln Gly Ile Arg Asn Asp Leu Gly
1 5 10

<210> 263

<211> 7

<212> PRT

<213> Artificial

<220>

<223> U 1 - 5-CDR-21

<400> 263

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 264

<211> 9

<212> PRT

<213> Artificial

<220>

<223> U 1 - 5-CDR-31

<400> 264

Leu Gln His Asn Thr Tyr Pro Trp Thr
1 5

<210> 265

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U1-6-CDR-1h

<400> 265

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 266

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U1-6-CDR-2h

<400> 266

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

<210> 267

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U1-6-CDR-3h

<400> 267

Ala	Asp	Tyr	Asp	Phe	Trp	Asn	Gly	Tyr	Phe	Asp	Tyr
1				5					10		

<210> 268

<211> 11

<212> PRT

<213> Artificial

<220>

<223> U1-6-CDR-11

<400> 268

Arg	Ala	Ser	Gln	Gly	Ile	Arg	Asn	Asp	Leu	Gly
1			5						10	

<210> 269

<211> 7

<212> PRT

<213> Artificial

<220>

<223> U1-6-CDR-21

<400> 269

Ala	Ala	Ser	Ser	Leu	Gln	Ser
1			5			

<210> 270

<211> 9

<212> PRT

<213> Artificial

<220>

<223> U1-6-CDR-31

<400> 270

Leu	Gln	His	Asn	Thr	Tyr	Pro	Trp	Thr
1			5					

<210> 271

<211> 12
<212> PRT
<213> Artificial

<220>
<223> U 1 - 7-CDR-1h

<400> 271

Gly	Gly	Ser	Ile	Ser	Ser	Gly	Asp	Tyr	Tyr	Trp	Ser
1				5					10		

<210> 272
<211> 16
<212> PRT
<213> Artificial

<220>
<223> U 1 - 7-CDR-2h

<400> 272

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

<210> 273
<211> 12
<212> PRT
<213> Artificial

<220>
<223> U 1 - 7-CDR-3h

<400> 273

Ala	Asp	Tyr	Asp	Phe	Trp	Ser	Gly	Tyr	Phe	Asp	Tyr
1				5					10		

<210> 274
<211> 11
<212> PRT
<213> Artificial

<220>
<223> U 1 - 7-CDR-11

<400> 274

Arg	Ala	Ser	Gln	Asp	Ile	Arg	Asn	Asp	Leu	Gly
1				5					10	

<210> 275
<211> 7
<212> PRT
<213> Artificial

<220>
<223> U 1 - 7-CDR-21

<400> 275

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 276
<211> 9
<212> PRT
<213> Artificial

<220>
<223> U 1 - 7-CDR-31

<400> 276

Leu Gln His Asn Ser Tyr Pro Trp Thr
1 5

<210> 277
<211> 10
<212> PRT
<213> Artificial

<220>
<223> U 1 - 8-CDR-1h

<400> 277

Gly Tyr Thr Leu Thr Glu Leu Ser Met Tyr
1 5 10

<210> 278
<211> 17
<212> PRT
<213> Artificial

<220>
<223> U 1 - 8-CDR-2h

<400> 278

Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe Gln

1 5 10 15

Gly

<210> 279
<211> 8
<212> PRT
<213> Artificial

<220>
<223> U 1 - 8-CDR-3h

<400> 279

Gly Trp Asn Tyr Val Phe Asp Tyr
1 5

<210> 280
<211> 16
<212> PRT
<213> Artificial

<220>
<223> U 1 - 8-CDR-11

<400> 280

Arg Ser Ser Gln Ser Leu Leu His Ser Asn Gly Tyr Asn Tyr Leu Asp
1 5 10 15

<210> 281
<211> 7
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<400> 281

Leu Asp Ser His Arg Ala Ser
1 5

<210> 282
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<223> U 1 - 8-CDR-3l

<400> 282

Met Gln Ala Leu Gln Thr Pro Leu Thr
1 5

<210> 283

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<400> 283

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

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<400> 284

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

<210> 285

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<400> 285

Ala Asp Tyr Asp Phe Trp Asn Gly Tyr Phe Asp Tyr
1 5 10

<210> 286

<211> 11

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<400> 286

Arg Ala Ser Gln Asp Ile Arg Asn Asp Leu Gly
1 5 10

<210> 287

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<400> 287

Ala Ala Ser Ser Leu Gln Ser
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<211> 9

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<223> U 1 - 9-CDR-31

<400> 288

Leu Gln His Asn Ser Tyr Pro Trp Thr
1 5

<210> 289

<211> 12

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<213> Artificial

<220>

<223> U1-10-CDR-1h

<400> 289

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 290

<211> 16
<212> PRT
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<220>
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<400> 290

Tyr	Ile	Tyr	Tyr	Ser	Gly	Ser	Thr	Tyr	Tyr	Asn	Pro	Ser	Leu	Lys	Ser
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<220>
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<400> 291

Ala	Asp	Tyr	Asp	Phe	Trp	Ser	Gly	Tyr	Phe	Asp	Tyr
1				5					10		

<210> 292
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<220>
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<400> 292

Arg	Ala	Ser	Gln	Gly	Ile	Arg	Asn	Asp	Leu	Gly
1				5					10	

<210> 293
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<212> PRT
<213> Artificial

<220>
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<400> 293

Ala	Ala	Ser	Ser	Leu	Gln	Ser
1				5		

<210> 294
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<212> PRT
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<220>
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<400> 294

Leu Gln His Asn Asn Tyr Pro Trp Thr
1 5

<210> 295
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<212> PRT
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<223> U 1 -11-CDR-1h

<400> 295

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 296
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<220>
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<400> 296

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

<210> 297
<211> 12
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<400> 297

Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr

1 5 10

<210> 298
<211> 11
<212> PRT
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<400> 298

Arg Ala Ser Gln Gly Ile Arg Asn Asp Leu Gly
1 5 10

<210> 299
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<400> 299

Ala Ala Ser Ser Leu Gln Ser
1 5

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<400> 300

Leu Gln His Asn Thr Tyr Pro Trp Thr
1 5

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<400> 301

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 302
<211> 16
<212> PRT
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<220>
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<400> 302

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

<210> 303
<211> 12
<212> PRT
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<220>
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<400> 303

Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr
1 5 10

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<220>
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<400> 304

Arg Ala Ser Gln Gly Ile Arg Asn Asp Leu Gly
1 5 10

<210> 305
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<400> 305

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 306

<211> 9

<212> PRT

<213> Artificial

<220>

<223> U1-12-CDR-31

<400> 306

Leu Gln His Asn Asn Tyr Pro Trp Thr
1 5

<210> 307

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U 1 -13-CDR-1h

<400> 307

Gly Gly Ser Ile Ser Ser Gly Gly Tyr Tyr Trp Ser
1 5 10

<210> 308

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U 1 -13-CDR-2h

<400> 308

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

<210> 309

<211> 7

<212> PRT

<213> Artificial

<220>

<223> U 1 -13-CDR-3h

<400> 309

Glu Asp Asp Gly Met Asp Val
1 5

<210> 310

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U 1 -13-CDR-11

<400> 310

Arg Ser Ser Gln Ser Leu Leu His Ser Asn Gly Tyr Asn Tyr Leu Glu
1 5 10 15

<210> 311

<211> 7

<212> PRT

<213> Artificial

<220>

<223> U 1 -13-CDR-21

<400> 311

Leu Gly Ser Asn Arg Ala Ser
1 5

<210> 312

<211> 9

<212> PRT

<213> Artificial

<220>

<223> U 1 -13-CDR-31

<400> 312

Met Gln Ala Leu Gln Thr Pro Ile Thr
1 5

<210> 313

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U1-14-CDR-1h

<400> 313

Gly	Gly	Ser	Ile	Ser	Ser	Gly	Asp	Tyr	Tyr	Trp	Ser
1				5					10		

<210> 314

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U1-14-CDR-2h

<400> 314

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

<210> 315

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U1-14-CDR-3h

<400> 315

Ala	Asp	Tyr	Asp	Phe	Trp	Ser	Gly	Tyr	Phe	Asp	Tyr
1				5					10		

<210> 316

<211> 11

<212> PRT

<213> Artificial

<220>

<223> U1-14-CDR-11

<400> 316

Arg	Ala	Ser	Gln	Gly	Ile	Arg	Asn	Asp	Leu	Gly
1				5					10	

<210> 317

<211> 7
<212> PRT
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<220>
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<400> 317

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 318
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<220>
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<400> 318

Leu Gln His Asn Thr Tyr Pro Trp Thr
1 5

<210> 319
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<212> PRT
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<220>
<223> U1-15-CDR-1h

<400> 319

Gly Gly Ser Val Ser Ser Gly Gly Tyr Tyr Trp Ser
1 5 10

<210> 320
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<212> PRT
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<220>
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<400> 320

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

<210> 321
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<212> PRT
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<220>
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<400> 321

Asp Gly Asp Val Asp Thr Ala Met Val Asp Ala Phe Asp Ile
1 5 10

<210> 322
<211> 12
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<220>
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<400> 322

Arg Ala Ser Gln Ser Leu Ser Gly Asn Tyr Leu Ala
1 5 10

<210> 323
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<212> PRT
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<220>
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<400> 323

Gly Ala Ser Ser Arg Ala Thr
1 5

<210> 324
<211> 9
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<220>
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<400> 324

Gln Gln Tyr Asp Arg Ser Pro Leu Thr

1 5

<210> 325
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<212> PRT
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<220>
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<400> 325

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 326
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<212> PRT
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<400> 326

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

<210> 327
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<220>
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<400> 327

Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr
1 5 10

<210> 328
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<400> 328

Arg Ala Ser Gln Gly Ile Arg Asn Asp Leu Gly
1 5 10

<210> 329
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Ala Ala Ser Ser Leu Gln Ser
1 5

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<400> 330

Leu Gln His Asn Ser Tyr Pro Trp Thr
1 5

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<400> 331

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 332
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<400> 332

Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Ser Ser Leu Lys Ser
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<210> 333

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<400> 333

Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr
1 5 10

<210> 334

<211> 11

<212> PRT

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<223> U1-17-CDR-11

<400> 334

Arg Ala Ser Gln Gly Ile Arg Asn Asp Leu Gly
1 5 10

<210> 335

<211> 7

<212> PRT

<213> Artificial

<220>

<223> U1-17-CDR-21

<400> 335

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 336

<211> 9

<212> PRT

<213> Artificial

<220>

<223> U1-17-CDR-3l

<400> 336

Leu Gln His Asn Ser Tyr Pro Trp Thr
1 5

<210> 337

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U1-18-CDR-1h

<400> 337

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 338

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U1-18-CDR-2h

<400> 338

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

<210> 339

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U1-18-CDR-3h

<400> 339

Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr
1 5 10

<210> 340

<211> 11

<212> PRT

<213> Artificial

<220>

<223> U1-18-CDR-11

<400> 340

Arg Ala Ser Gln Gly Ile Arg Asn Asp Leu Gly
1 5 10

<210> 341

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<212> PRT

<213> Artificial

<220>

<223> U1-18-CDR-21

<400> 341

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 342

<211> 9

<212> PRT

<213> Artificial

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<223> U1-18-CDR-31

<400> 342

Leu Gln His Asn Ser Tyr Pro Trp Thr
1 5

<210> 343

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U1-19-CDR-1h

<400> 343

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 344

<211> 16
<212> PRT
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<220>
<223> U1-19-CDR-2h

<400> 344

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

<210> 345
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<212> PRT
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<220>
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<400> 345

Gly	Asp	Tyr	Asp	Phe	Trp	Ser	Gly	Glu	Phe	Asp	Tyr
1				5				10			

<210> 346
<211> 12
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<213> Artificial

<220>
<223> U1-20-CDR-1h

<400> 346

Gly	Gly	Ser	Ile	Ser	Ser	Gly	Gly	Tyr	Tyr	Trp	Ser
1				5					10		

<210> 347
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<212> PRT
<213> Artificial

<220>
<223> U1-20-CDR-2h

<400> 347

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

<210> 348
<211> 19
<212> PRT
<213> Artificial

<220>
<223> U1-20-CDR-3h

<400> 348

Asp Gln Gly Gln Asp Gly Tyr Ser Tyr Gly Tyr Gly Tyr Tyr Tyr Gly
1 5 10 15

Met Asp Val

<210> 349
<211> 11
<212> PRT
<213> Artificial

<220>
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<400> 349

Gln Ala Ser Gln Asp Ile Ser Asn Tyr Leu Asn
1 5 10

<210> 350
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<212> PRT
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<400> 350

Val Ala Ser Asn Leu Glu Thr
1 5

<210> 351
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<400> 351

Gln Gln Cys Asp Asn Leu Pro Leu Thr
1 5

<210> 352

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<212> PRT

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<223> U1-21-CDR-1h

<400> 352

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 353

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U1-21-CDR-2h

<400> 353

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

<210> 354

<211> 12

<212> PRT

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<223> U1-21-CDR-3h

<400> 354

Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr
1 5 10

<210> 355

<211> 11

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<223> U1-21-CDR-11

<400> 355

Arg Ala Ser Gln Asp Ile Arg Asn Asp Leu Gly
1 5 10

<210> 356

<211> 7

<212> PRT

<213> Artificial

<220>

<223> U1-21-CDR-21

<400> 356

Ala Ala Ser Arg Leu Gln Ser
1 5

<210> 357

<211> 9

<212> PRT

<213> Artificial

<220>

<223> U1-21-CDR-31

<400> 357

Leu Gln His Asn Ser Tyr Pro Trp Thr
1 5

<210> 358

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U1-22-CDR-1h

<400> 358

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 359

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U1-22-CDR-2h

<400> 359

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

<210> 360

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<212> PRT

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<223> U1-22-CDR-3h

<400> 360

Ala	Asp	Tyr	Asp	Phe	Trp	Ser	Gly	Tyr	Phe	Asp	Tyr
1				5					10		

<210> 361

<211> 11

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<213> Artificial

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<223> U1-22-CDR-11

<400> 361

Arg	Ala	Ser	Gln	Gly	Ile	Arg	Asn	Asp	Leu	Gly
1				5					10	

<210> 362

<211> 7

<212> PRT

<213> Artificial

<220>

<223> U1-22-CDR-21

<400> 362

Ala	Ala	Ser	Ser	Leu	Gln	Asn
1				5		

<210> 363

<211> 9
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<220>
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<400> 363

Leu Gln His Asn Ser Tyr Pro Trp Thr
1 5

<210> 364
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<400> 364

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 365
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<400> 365

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

<210> 366
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<400> 366

Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr
1 5 10

<210> 367
<211> 11
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<400> 367

Arg Ala Ser Gln Gly Ile Arg Asn Asp Leu Gly
1 5 10

<210> 368
<211> 7
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<400> 368

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 369
<211> 9
<212> PRT
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<220>
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<400> 369

Leu Gln His Asn Ser Tyr Pro Trp Thr
1 5

<210> 370
<211> 12
<212> PRT
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<400> 370

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser

1 5 10

<210> 371
<211> 16
<212> PRT
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<400> 371

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

<210> 372
<211> 12
<212> PRT
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<400> 372

Ala Asp Tyr Asp Phe Trp Asn Gly Tyr Phe Asp Tyr
1 5 10

<210> 373
<211> 11
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<400> 373

Arg Ala Ser Gln Gly Ile Arg Asn Asp Leu Gly
1 5 10

<210> 374
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<400> 374

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 375
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<400> 375

Leu Gln His Asn Asn Tyr Pro Trp Thr
1 5

<210> 376
<211> 12
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<400> 376

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 377
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<400> 377

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

<210> 378
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<400> 378

Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr
1 5 10

<210> 379

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<400> 379

Arg Ala Ser Gln Gly Ile Arg Asn Asp Leu Gly
1 5 10

<210> 380

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Ala Ala Ser Ser Leu Gln Asn
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<210> 381

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<223> U1-25-CDR-31

<400> 381

Leu Gln His Asn Ser Tyr Pro Trp Thr
1 5

<210> 382

<211> 12

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<223> U1-26-CDR-1h

<400> 382

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 383

<211> 16

<212> PRT

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<400> 383

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

<210> 384

<211> 12

<212> PRT

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<400> 384

Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Phe
1 5 10

<210> 385

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<400> 385

Arg Ala Ser Gln Gly Ile Arg Asn Asp Leu Gly
1 5 10

<210> 386

<211> 7

<212> PRT

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<400> 386

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 387

<211> 9

<212> PRT

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<223> U1-26-CDR-31

<400> 387

Leu Gln His Asn Gly Tyr Pro Trp Thr
1 5

<210> 388

<211> 12

<212> PRT

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<223> U1-27-CDR-1h

<400> 388

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 389

<211> 16

<212> PRT

<213> Artificial

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<223> U1-27-CDR-2h

<400> 389

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

<210> 390

<211> 12
<212> PRT
<213> Artificial

<220>
<223> U1-27-CDR-3h

<400> 390

Ala	Asp	Tyr	Asp	Phe	Trp	Ser	Gly	Tyr	Phe	Asp	Phe
1				5					10		

<210> 391
<211> 11
<212> PRT
<213> Artificial

<220>
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<400> 391

Arg	Ala	Ser	Gln	Gly	Ile	Arg	Asn	Asp	Leu	Gly
1			5						10	

<210> 392
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<212> PRT
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<220>
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<400> 392

Ala	Ala	Ser	Ser	Leu	Gln	Ser
1			5			

<210> 393
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<220>
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<400> 393

Leu	Gln	His	Asn	Gly	Tyr	Pro	Trp	Thr
1			5					

<210> 394
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<220>
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<400> 394

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 395
<211> 16
<212> PRT
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<220>
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<400> 395

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

<210> 396
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<400> 396

Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Ser
1 5 10

<210> 397
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<400> 397

Arg Ala Ser Gln Gly Ile Arg Asn Asp Leu Gly

1 5 10

<210> 398
<211> 7
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<220>
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<400> 398

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 399
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<400> 399

Leu Gln His Asn Gly Tyr Pro Trp Thr
1 5

<210> 400
<211> 10
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<220>
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<400> 400

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

<210> 401
<211> 17
<212> PRT
<213> Artificial

<220>
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<400> 401

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

Gly

<210> 402
<211> 17
<212> PRT
<213> Artificial

<220>
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<400> 402

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

Val

<210> 403
<211> 11
<212> PRT
<213> Artificial

<220>
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<400> 403

Gln Ala Ser Gln Asp Ile Ser Asn Tyr Leu Asn
1 5 10

<210> 404
<211> 7
<212> PRT
<213> Artificial

<220>
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<400> 404

Asp Ala Ser Asn Leu Glu Thr
1 5

<210> 405
<211> 9
<212> PRT
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<220>
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<400> 405

Gln His Tyr Asp Thr Leu Pro Leu Thr
1 5

<210> 406
<211> 12
<212> PRT
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<220>
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<400> 406

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 407
<211> 16
<212> PRT
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<220>
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<400> 407

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

<210> 408
<211> 12
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<220>
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<400> 408

Ala Asp Tyr Asp Phe Trp Ser Gly Tyr Phe Asp Tyr

1

5

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<220>
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<400> 409

Arg Ala Gly Gln Gly Ile Arg Asn Asp Leu Gly
1 5 10

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<400> 410

Ala Ala Ser Ser Leu Gln Ser
1 5

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<400> 411

Leu Gln His Asn Ser Tyr Pro Trp Thr
1 5

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<400> 412

Gly Tyr Thr Phe Thr Asn Tyr Gly Ile Ser
1 5 10

<210> 413
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<220>
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<400> 413

Trp Ile Ser Ala Tyr Asp Gly Tyr Arg Asn Tyr Ala Gln Lys Leu Gln
1 5 10 15

Gly

<210> 414
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<400> 414

Asp Val Gln Asp Tyr Gly Asp Tyr Asp Tyr Phe Asp Tyr
1 5 10

<210> 415
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<220>
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<400> 415

Arg Ala Ser Gln Ser Ile Ser Ser Tyr Leu Asn
1 5 10

<210> 416
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<220>

<223> U1-31-CDR-21

<400> 416

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 417

<211> 9

<212> PRT

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<223> U1-31-CDR-31

<400> 417

Gln Gln Ser Tyr Ser Thr Pro Ile Thr
1 5

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<213> Artificial

<220>

<223> U1-32-CDR-1h

<400> 418

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 419

<211> 16

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<213> Artificial

<220>

<223> U1-32-CDR-2h

<400> 419

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

<210> 420

<211> 12
<212> PRT
<213> Artificial

<220>
<223> U1-32-CDR-3h

<400> 420

Ala	Asp	Tyr	Asp	Phe	Trp	Ser	Gly	Tyr	Phe	Asp	Tyr
1				5					10		

<210> 421
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<212> PRT
<213> Artificial

<220>
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<400> 421

Arg	Ala	Gly	Gln	Gly	Ile	Arg	Asn	Asp	Leu	Gly
1			5						10	

<210> 422
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<212> PRT
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<220>
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<400> 422

Ala	Ala	Ser	Ser	Leu	Gln	Ser
1			5			

<210> 423
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<212> PRT
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<220>
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<400> 423

Leu	Gln	His	Asn	Ser	Tyr	Pro	Trp	Thr
1			5					

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<220>
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<400> 424

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Tyr Trp Ser
1 5 10

<210> 425
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<220>
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<400> 425

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

<210> 426
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<213> Artificial

<220>
<223> U1-33-CDR-3h

<400> 426

Ala Asp Tyr Asp Phe Trp Ser Gly His Phe Asp Cys
1 5 10

<210> 427
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<220>
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<400> 427

Arg Ala Ser Gln Gly Ile Arg Asp Asp Leu Gly

1 5 10

<210> 428
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<400> 428

Ala Glu Ser Ser Leu Gln Ser
1 5

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<220>
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<400> 429

Leu Gln His His Ser Tyr Pro Trp Thr
1 5

<210> 430
<211> 10
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<220>
<223> U1-34-CDR-1h

<400> 430

Gly Tyr Thr Phe Thr Asn Tyr Gly Ile Ser
1 5 10

<210> 431
<211> 17
<212> PRT
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<220>
<223> U1-34-CDR-2h

<400> 431

Trp Ile Ser Ala Tyr Asp Gly Tyr Arg Asn Tyr Ala Gln Lys Leu Gln
1 5 10 15

Gly

<210> 432
<211> 13
<212> PRT
<213> Artificial

<220>
<223> U1-34-CDR-3h

<400> 432

Asp Val Gln Asp Tyr Gly Asp Tyr Asp Tyr Phe Asp Tyr
1 5 10

<210> 433
<211> 11
<212> PRT
<213> Artificial

<220>
<223> U1-34-CDR-11

<400> 433

Arg Ala Ser Gln Ser Ile Ser Ser Tyr Leu Asn
1 5 10

<210> 434
<211> 7
<212> PRT
<213> Artificial

<220>
<223> U1-34-CDR-21

<400> 434

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 435
<211> 9
<212> PRT

<213> Artificial

<220>

<223> U1-34-CDR-3l

<400> 435

Gln Gln Ser Tyr Ser Thr Pro Ile Thr
1 5

<210> 436

<211> 10

<212> PRT

<213> Artificial

<220>

<223> U1-35-CDR-1h

<400> 436

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

<210> 437

<211> 17

<212> PRT

<213> Artificial

<220>

<223> U1-35-CDR-2h

<400> 437

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

Gly

<210> 438

<211> 14

<212> PRT

<213> Artificial

<220>

<223> U1-35-CDR-3h

<400> 438

Glu Arg Tyr Ser Gly Tyr Asp Asp Pro Asp Gly Phe Asp Ile

1

5

10

<210> 439
<211> 11
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<213> Artificial

<220>
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<400> 439

Gln Ala Ser Gln Asp Ile Ser Asn Tyr Leu Ser
1 5 10

<210> 440
<211> 7
<212> PRT
<213> Artificial

<220>
<223> U1-35-CDR-21

<400> 440

Asp Ala Ser Asn Leu Glu Thr
1 5

<210> 441
<211> 9
<212> PRT
<213> Artificial

<220>
<223> U1-35-CDR-31

<400> 441

Gln Gln Tyr Asp Asn Pro Pro Cys Ser
1 5

<210> 442
<211> 12
<212> PRT
<213> Artificial

<220>
<223> U1-36-CDR-1h

<400> 442

Gly Gly Ser Ile Ser Ser Gly Tyr Tyr Tyr Trp Ser
1 5 10

<210> 443
<211> 16
<212> PRT
<213> Artificial

<220>
<223> U1-36-CDR-2h

<400> 443

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

<210> 444
<211> 12
<212> PRT
<213> Artificial

<220>
<223> U1-36-CDR-3h

<400> 444

Ala Asp Tyr Asp Phe Trp Ser Gly His Phe Asp Tyr
1 5 10

<210> 445
<211> 11
<212> PRT
<213> Artificial

<220>
<223> U1-36-CDR-11

<400> 445

Arg Ala Ser Gln Gly Ile Arg Asn Asp Leu Gly
1 5 10

<210> 446
<211> 7
<212> PRT
<213> Artificial

<220>
<223> U1-36-CDR-21

<400> 446

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 447

<211> 9

<212> PRT

<213> Artificial

<220>

<223> U1-36-CDR-3l

<400> 447

Leu Gln His Asn Ser Tyr Pro Trp Thr
1 5

<210> 448

<211> 10

<212> PRT

<213> Artificial

<220>

<223> U1-37-CDR-1h

<400> 448

Gly Tyr Thr Phe Thr Ser Tyr Gly Ile Ser
1 5 10

<210> 449

<211> 17

<212> PRT

<213> Artificial

<220>

<223> U1-37-CDR-2h

<400> 449

Trp Ile Ser Ala Tyr Asp Gly His Thr Asn Tyr Ala Gln Lys Leu Gln
1 5 10 15

Gly

<210> 450

<211> 13
<212> PRT
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<220>
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<400> 450

Asp	Pro	His	Asp	Tyr	Ser	Asn	Tyr	Glu	Ala	Phe	Asp	Phe
1				5					10			

<210> 451
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<212> PRT
<213> Artificial

<220>
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<400> 451

Arg	Ala	Ser	Gln	Ser	Ile	Ser	Ser	Tyr	Leu	Asn
1				5					10	

<210> 452
<211> 7
<212> PRT
<213> Artificial

<220>
<223> U1-37-CDR-21

<400> 452

Ala	Ala	Ser	Ser	Leu	Gln	Ser
1				5		

<210> 453
<211> 9
<212> PRT
<213> Artificial

<220>
<223> U1-37-CDR-31

<400> 453

Gln	Gln	Ser	Tyr	Ser	Thr	Pro	Ile	Thr
1				5				

<210> 454
<211> 12
<212> PRT
<213> Artificial

<220>
<223> U1-38-CDR-1h

<400> 454

Gly Phe Ser Leu Ser Thr Ser Gly Val Gly Val Gly
1 5 10

<210> 455
<211> 16
<212> PRT
<213> Artificial

<220>
<223> U1-38-CDR-2h

<400> 455

Leu Ile Tyr Trp Asn Asp Asp Lys Arg Tyr Ser Pro Ser Leu Lys Ser
1 5 10 15

<210> 456
<211> 9
<212> PRT
<213> Artificial

<220>
<223> U1-38-CDR-3h

<400> 456

Arg Asp Glu Val Arg Gly Phe Asp Tyr
1 5

<210> 457
<211> 16
<212> PRT
<213> Artificial

<220>
<223> U1-38-CDR-11

<400> 457

Arg Ser Ser Gln Ser Leu Val Tyr Ser Asp Gly Tyr Thr Tyr Leu His

1 5 10 15

<210> 458
<211> 7
<212> PRT
<213> Artificial

<220>
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<400> 458

Lys Val Ser Asn Trp Asp Ser
1 5

<210> 459
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<212> PRT
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<220>
<223> U1-38-CDR-31

<400> 459

Met Gln Gly Ala His Trp Pro Ile Thr
1 5

<210> 460
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<213> Artificial

<220>
<223> U1-39-CDR-1h

<400> 460

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

<210> 461
<211> 16
<212> PRT
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<220>
<223> U1-39-CDR-2h

<400> 461

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

<210> 462
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<212> PRT
<213> Artificial

<220>
<223> U1-39-CDR-3h

<400> 462

Gly Gln Trp Leu Asp Val
1 5

<210> 463
<211> 16
<212> PRT
<213> Artificial

<220>
<223> U1-39-CDR-11

<400> 463

Arg Ser Ser Gln Ser Leu Leu His Ser Asn Gly Tyr Asn Tyr Leu Asp
1 5 10 15

<210> 464
<211> 7
<212> PRT
<213> Artificial

<220>
<223> U1-39-CDR-21

<400> 464

Leu Gly Phe His Arg Ala Ser
1 5

<210> 465
<211> 9
<212> PRT
<213> Artificial

<220>
<223> U1-39-CDR-31

<400> 465

Arg Gln Ala Leu Gln Thr Pro Leu Thr
1 5

<210> 466

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U1-40-CDR-1h

<400> 466

Gly Gly Ser Ile Ser Ser Gly Gly Tyr Tyr Trp Ser
1 5 10

<210> 467

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U1-40-CDR-2h

<400> 467

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

<210> 468

<211> 15

<212> PRT

<213> Artificial

<220>

<223> U1-40-CDR-3h

<400> 468

Asp Arg Glu Leu Glu Leu Tyr Tyr Tyr Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 469

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U1-40-CDR-11

<400> 469

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

<210> 470

<211> 7

<212> PRT

<213> Artificial

<220>

<223> U1-40-CDR-21

<400> 470

Leu Gly Ser Asn Arg Ala Ser
1 5

<210> 471

<211> 9

<212> PRT

<213> Artificial

<220>

<223> U1-40-CDR-31

<400> 471

Met Gln Ala Leu Gln Thr Pro Leu Thr
1 5

<210> 472

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U1-41-CDR-1h

<400> 472

Gly Gly Ser Ile Ser Ser Gly Gly Tyr Tyr Trp Ser
1 5 10

<210> 473

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U1-41-CDR-2h

<400> 473

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

<210> 474

<211> 15

<212> PRT

<213> Artificial

<220>

<223> U1-41-CDR-3h

<400> 474

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

<210> 475

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<212> PRT

<213> Artificial

<220>

<223> U1-41-CDR-11

<400> 475

Arg	Ala	Ser	Gln	Ala	Ile	Ser	Asn	Tyr	Leu	Asn
1				5					10	

<210> 476

<211> 7

<212> PRT

<213> Artificial

<220>

<223> U1-41-CDR-21

<400> 476

Ala	Ala	Ser	Ser	Leu	Gln	Ser
1				5		

<210> 477

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

<220>
<223> U1-41-CDR-3l

<400> 477

Gln Gln Asn Asn Ser Leu Pro Ile Thr
1 5

<210> 478
<211> 10
<212> PRT
<213> Artificial

<220>
<223> U1-42-CDR-1h

<400> 478

Gly Tyr Ser Phe Thr Ser Tyr Trp Ile Gly
1 5 10

<210> 479
<211> 17
<212> PRT
<213> Artificial

<220>
<223> U1-42-CDR-2h

<400> 479

Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe Gln
1 5 10 15

Gly

<210> 480
<211> 9
<212> PRT
<213> Artificial

<220>
<223> U1-42-CDR-3h

<400> 480

His Glu Asn Tyr Gly Asp Tyr Asn Tyr
1 5

<210> 481
<211> 11
<212> PRT
<213> Artificial

<220>
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<400> 481

Arg Ala Ser Gln Ser Ile Arg Ser Tyr Leu Asn
1 5 10

<210> 482
<211> 7
<212> PRT
<213> Artificial

<220>
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<400> 482

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 483
<211> 9
<212> PRT
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<220>
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<400> 483

Gln Gln Ser Asn Gly Ser Pro Leu Thr
1 5

<210> 484
<211> 12
<212> PRT
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<220>
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<400> 484

Gly Gly Ser Ile Ser Ser Gly Gly Tyr Tyr Trp Ser
1 5 10

<210> 485

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U1-43-CDR-2h

<400> 485

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

<210> 486

<211> 17

<212> PRT

<213> Artificial

<220>

<223> U1-43-CDR-3h

<400> 486

Asp Arg Glu Arg Glu Trp Asp Asp Tyr Gly Asp Pro Gln Gly Met Asp
1 5 10 15

Val

<210> 487

<211> 11

<212> PRT

<213> Artificial

<220>

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<400> 487

Arg Ala Ser Gln Ser Ile Ser Ser Tyr Leu His
1 5 10

<210> 488

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<400> 488

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 489
<211> 9
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<400> 489

Gln Gln Ser Tyr Ser Asn Pro Leu Thr
1 5

<210> 490
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<400> 490

Gly Tyr Ser Phe Thr Ser Tyr Trp Ile Gly
1 5 10

<210> 491
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<212> PRT
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<400> 491

Ile Ile Trp Pro Gly Asp Ser Asp Thr Ile Tyr Ser Pro Ser Phe Gln
1 5 10 15

Gly

<210> 492
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<212> PRT
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<220>
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<400> 492

His Glu Asn Tyr Gly Asp Tyr Asn Tyr
1 5

<210> 493
<211> 11
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<400> 493

Arg Ala Ser Gln Ser Ile Arg Ser Tyr Leu Asn
1 5 10

<210> 494
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<212> PRT
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<400> 494

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 495
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<220>
<223> U1-44-CDR-31

<400> 495

Gln Gln Ser Ile Ser Ser Pro Leu Thr
1 5

<210> 496

<211> 10

<212> PRT

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<223> U1-45-CDR-1h

<400> 496

Gly Tyr Thr Phe Thr Ser Tyr Asp Ile Asn
1 5 10

<210> 497

<211> 17

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<220>

<223> U1-45-CDR-2h

<400> 497

Trp Met Asn Pro Asn Ser Gly Asp Thr Gly Tyr Ala Gln Val Phe Gln
1 5 10 15

Gly

<210> 498

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U1-45-CDR-3h

<400> 498

Phe Gly Asp Leu Pro Tyr Asp Tyr Ser Tyr Tyr Glu Trp Phe Asp Pro
1 5 10 15

<210> 499

<211> 11
<212> PRT
<213> Artificial

<220>
<223> U1-45-CDR-11

<400> 499

Arg Ala Ser Gln Ser Ile Ser Ser Tyr Leu Asn
1 5 10

<210> 500
<211> 7
<212> PRT
<213> Artificial

<220>
<223> U1-45-CDR-21

<400> 500

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 501
<211> 9
<212> PRT
<213> Artificial

<220>
<223> U1-45-CDR-31

<400> 501

Gln Gln Ser Tyr Ser Thr Pro Leu Thr
1 5

<210> 502
<211> 12
<212> PRT
<213> Artificial

<220>
<223> U1-46-CDR-1h

<400> 502

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

<210> 503
<211> 18
<212> PRT
<213> Artificial

<220>
<223> U1-46-CDR-2h

<400> 503

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

Lys Ser

<210> 504
<211> 17
<212> PRT
<213> Artificial

<220>
<223> U1-46-CDR-3h

<400> 504

Asp	Leu	Tyr	Asp	Phe	Trp	Ser	Gly	Tyr	Pro	Tyr	Tyr	Tyr	Gly	Met	Asp
1				5					10					15	

Val

<210> 505
<211> 12
<212> PRT
<213> Artificial

<220>
<223> U1-47-CDR-1h

<400> 505

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

<210> 506
<211> 18
<212> PRT

<213> Artificial

<220>

<223> U1-47-CDR-2h

<400> 506

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

Lys Ser

<210> 507

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U1-47-CDR-3h

<400> 507

Asp	Tyr	Tyr	Gly	Ser	Gly	Ser	Phe	Tyr	Tyr	Tyr	Tyr	Gly	Met	Asp	Val
1				5					10					15	

<210> 508

<211> 11

<212> PRT

<213> Artificial

<220>

<223> U1-47-CDR-11

<400> 508

Arg	Ala	Ser	Gln	Ser	Ile	Ser	Ser	Tyr	Leu	Asn
1				5					10	

<210> 509

<211> 7

<212> PRT

<213> Artificial

<220>

<223> U1-47-CDR-21

<400> 509

Ala Ala Ser Asn Leu Gln Ser

1 5

<210> 510
<211> 9
<212> PRT
<213> Artificial

<220>
<223> U1-47-CDR-3l

<400> 510

Gln Gln Ser Tyr Ser Thr Pro Arg Thr
1 5

<210> 511
<211> 10
<212> PRT
<213> Artificial

<220>
<223> U1-48-CDR-1h

<400> 511

Gly Gly Ser Ile Ser Ser Tyr Tyr Trp Ser
1 5 10

<210> 512
<211> 16
<212> PRT
<213> Artificial

<220>
<223> U1-48-CDR-2h

<400> 512

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

<210> 513
<211> 16
<212> PRT
<213> Artificial

<220>
<223> U1-48-CDR-3h

<400> 513

Glu Ala Ile Phe Gly Val Gly Pro Tyr Tyr Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 514
<211> 10
<212> PRT
<213> Artificial

<220>
<223> U1-49-CDR-1h

<400> 514

Gly Tyr Thr Phe Thr Gly Tyr Tyr Met His
1 5 10

<210> 515
<211> 17
<212> PRT
<213> Artificial

<220>
<223> U1-49-CDR-2h

<400> 515

Trp Ile Asn Pro Asn Ile Gly Gly Thr Asn Cys Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 516
<211> 17
<212> PRT
<213> Artificial

<220>
<223> U1-49-CDR-3h

<400> 516

Gly Gly Arg Tyr Ser Ser Ser Trp Ser Tyr Tyr Tyr Tyr Gly Met Asp
1 5 10 15

Val

<210> 517
<211> 16
<212> PRT
<213> Artificial

<220>
<223> U1-49-CDR-11

<400> 517

Lys Ser Ser Gln Ser Leu Leu Leu Ser Asp Gly Gly Thr Tyr Leu Tyr
1 5 10 15

<210> 518
<211> 7
<212> PRT
<213> Artificial

<220>
<223> U1-49-CDR-21

<400> 518

Glu Val Ser Asn Arg Phe Ser
1 5

<210> 519
<211> 9
<212> PRT
<213> Artificial

<220>
<223> U1-49-CDR-31

<400> 519

Met Gln Ser Met Gln Leu Pro Ile Thr
1 5

<210> 520
<211> 12
<212> PRT
<213> Artificial

<220>
<223> U1-50-CDR-1h

<400> 520

Gly Gly Ser Val Ser Ser Gly Gly Tyr Tyr Trp Ser

1 5 10

<210> 521
<211> 16
<212> PRT
<213> Artificial

<220>
<223> U1-50-CDR-2h

<400> 521

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

<210> 522
<211> 17
<212> PRT
<213> Artificial

<220>
<223> U1-50-CDR-3h

<400> 522

Gly Gly Asp Ser Asn Tyr Glu Asp Tyr Tyr Tyr Tyr Tyr Gly Met Asp
1 5 10 15

Val

<210> 523
<211> 11
<212> PRT
<213> Artificial

<220>
<223> U1-50-CDR-11

<400> 523

Arg Ala Ser Gln Ser Ile Ser Ile Tyr Leu His
1 5 10

<210> 524
<211> 7
<212> PRT
<213> Artificial

<220>

<223> U1-50-CDR-21

<400> 524

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 525

<211> 9

<212> PRT

<213> Artificial

<220>

<223> U1-50-CDR-31

<400> 525

Gln Gln Ser Tyr Thr Ser Pro Ile Thr
1 5

<210> 526

<211> 10

<212> PRT

<213> Artificial

<220>

<223> U1-51-CDR-1h

<400> 526

Gly Gly Ser Ile Ser Ser Tyr Tyr Trp Ser
1 5 10

<210> 527

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U1-51-CDR-2h

<400> 527

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

<210> 528

<211> 19

<212> PRT

<213> Artificial

<220>

<223> U1-51-CDR-3h

<400> 528

Asp	Ser	Ser	Tyr	Tyr	Asp	Ser	Ser	Gly	Tyr	Tyr	Leu	Tyr	Tyr	Tyr	Ala
1				5					10					15	

Met Asp Val

<210> 529

<211> 17

<212> PRT

<213> Artificial

<220>

<223> U1-51-CDR-11

<400> 529

Lys	Ser	Ser	Gln	Ser	Val	Leu	Tyr	Ser	Ser	Asn	Asn	Lys	Asn	Tyr	Leu
1				5					10					15	

Ala

<210> 530

<211> 7

<212> PRT

<213> Artificial

<220>

<223> U1-51-CDR-21

<400> 530

Trp	Ala	Ser	Thr	Arg	Glu	Ser
1				5		

<210> 531

<211> 9

<212> PRT

<213> Artificial

<220>

<223> U1-51-CDR-31

<400> 531

Gln Gln Tyr Tyr Thr Thr Pro Leu Thr
1 5

<210> 532

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U1-52-CDR-1h

<400> 532

Gly Gly Ser Ile Ser Ser Gly Gly Tyr Tyr Trp Ser
1 5 10

<210> 533

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U1-52-CDR-2h

<400> 533

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

<210> 534

<211> 15

<212> PRT

<213> Artificial

<220>

<223> U1-52-CDR-3h

<400> 534

Gly Gly Thr Gly Thr Asn Tyr Tyr Tyr Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 535

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U1-52-CDR-11

<400> 535

Arg Ala Ser Gln Ser Val Ser Ser Ser Tyr Leu Ala
1 5 10

<210> 536

<211> 7

<212> PRT

<213> Artificial

<220>

<223> U1-52-CDR-21

<400> 536

Gly Ala Ser Ser Trp Ala Thr
1 5

<210> 537

<211> 9

<212> PRT

<213> Artificial

<220>

<223> U1-52-CDR-31

<400> 537

Gln Gln Tyr Gly Ser Ser Pro Leu Thr
1 5

<210> 538

<211> 10

<212> PRT

<213> Artificial

<220>

<223> U1-53-CDR-1h

<400> 538

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

<210> 539

<211> 17

<212> PRT

<213> Artificial

<220>

<223> U1-53-CDR-2h

<400> 539

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

Gly

<210> 540

<211> 10

<212> PRT

<213> Artificial

<220>

<223> U1-53-CDR-3h

<400> 540

Asp	Arg	Gly	Asp	Phe	Asp	Ala	Phe	Asp	Ile
1				5					10

<210> 541

<211> 11

<212> PRT

<213> Artificial

<220>

<223> U1-53-CDR-11

<400> 541

Gln	Ala	Ser	Gln	Asp	Ile	Thr	Asn	Tyr	Leu	Asn
1				5					10	

<210> 542

<211> 7

<212> PRT

<213> Artificial

<220>

<223> U1-53-CDR-21

<400> 542

Asp Ala Ser Asn Leu Glu Thr

1 5

<210> 543
<211> 9
<212> PRT
<213> Artificial

<220>
<223> U1-53-CDR-3l

<400> 543

Gln Gln Cys Glu Asn Phe Pro Ile Thr
1 5

<210> 544
<211> 12
<212> PRT
<213> Artificial

<220>
<223> U1-55.1-CDR-1h

<400> 544

Gly Gly Ser Val Ser Ser Gly Gly Tyr Tyr Trp Asn
1 5 10

<210> 545
<211> 16
<212> PRT
<213> Artificial

<220>
<223> U1-55.1-CDR-2h

<400> 545

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

<210> 546
<211> 15
<212> PRT
<213> Artificial

<220>
<223> U1-55.1-CDR-3h

<400> 546

Asp Arg Glu Leu Glu Leu Tyr Tyr Tyr Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 547
<211> 16
<212> PRT
<213> Artificial

<220>
<223> U1-55-CDR-11

<400> 547

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

<210> 548
<211> 7
<212> PRT
<213> Artificial

<220>
<223> U1-55-CDR-21

<400> 548

Leu Gly Ser Asn Arg Ala Ser
1 5

<210> 549
<211> 9
<212> PRT
<213> Artificial

<220>
<223> U1-55-CDR-31

<400> 549

Met Gln Ala Leu Gln Thr Pro Ile Thr
1 5

<210> 550
<211> 16
<212> PRT
<213> Artificial

<220>
<223> U1-57.1-CDR-11

<400> 550

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

<210> 551

<211> 7

<212> PRT

<213> Artificial

<220>

<223> U1-57.1-CDR-21

<400> 551

Leu Gly Ser Asn Arg Ala Ser
1 5

<210> 552

<211> 9

<212> PRT

<213> Artificial

<220>

<223> U1-57.1-CDR-31

<400> 552

Met Gln Ala Leu Gln Thr Pro Ile Thr
1 5

<210> 553

<211> 12

<212> PRT

<213> Artificial

<220>

<223> U1-57_CDR-1h

<400> 553

Gly Gly Ser Val Ser Ser Gly Gly Tyr Tyr Trp Asn
1 5 10

<210> 554

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U1-57_CDR-2h

<400> 554

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

<210> 555

<211> 15

<212> PRT

<213> Artificial

<220>

<223> U1-57_CDR-3h

<400> 555

Asp	Arg	Glu	Leu	Glu	Leu	Tyr	Tyr	Tyr	Tyr	Tyr	Gly	Met	Asp	Val
1				5					10					15

<210> 556

<211> 10

<212> PRT

<213> Artificial

<220>

<223> U1-58-CDR-1h

<400> 556

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

<210> 557

<211> 17

<212> PRT

<213> Artificial

<220>

<223> U1-58-CDR-2h

<400> 557

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

Gly

<210> 558
<211> 12
<212> PRT
<213> Artificial

<220>
<223> U1-58-CDR-3h

<400> 558

Ala Ala Arg Leu Asp Tyr Tyr Tyr Gly Met Asp Val
1 5 10

<210> 559
<211> 11
<212> PRT
<213> Artificial

<220>
<223> U1-58-CDR-11

<400> 559

Arg Ala Ser Gln Ser Ile Asn Ser Tyr Leu Asn
1 5 10

<210> 560
<211> 7
<212> PRT
<213> Artificial

<220>
<223> U1-58-CDR-21

<400> 560

Gly Ala Ser Gly Leu Gln Ser
1 5

<210> 561
<211> 9
<212> PRT
<213> Artificial

<220>
<223> U1-58-CDR-31

<400> 561

Gln Gln Ser Tyr Ser Ser Pro Leu Thr

1

5

<210> 562
<211> 10
<212> PRT
<213> Artificial

<220>
<223> U1-59-CDR-1h

<400> 562

Gly Gly Ser Phe Ser Gly Tyr Tyr Trp Ser
1 5 10

<210> 563
<211> 16
<212> PRT
<213> Artificial

<220>
<223> U1-59-CDR-2h

<400> 563

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

<210> 564
<211> 9
<212> PRT
<213> Artificial

<220>
<223> U1-59-CDR-3h

<400> 564

Asp Lys Trp Thr Trp Tyr Phe Asp Leu
1 5

<210> 565
<211> 17
<212> PRT
<213> Artificial

<220>
<223> U1-59-CDR-11

<400> 565

Arg Ser Ser Gln Ser Val Leu Tyr Ser Ser Ser Asn Arg Asn Tyr Leu
1 5 10 15

Ala

<210> 566
<211> 7
<212> PRT
<213> Artificial

<220>
<223> U1-59-CDR-21

<400> 566

Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 567
<211> 9
<212> PRT
<213> Artificial

<220>
<223> U1-59-CDR-31

<400> 567

Gln Gln Tyr Tyr Ser Thr Pro Arg Thr
1 5

<210> 568
<211> 12
<212> PRT
<213> Artificial

<220>
<223> U1-61.1-CDR-1h

<400> 568

Gly Val Ser Ile Ser Ser Gly Gly Tyr Tyr Trp Ser
1 5 10

<210> 569
<211> 16
<212> PRT

<213> Artificial

<220>

<223> U1-61.1-CDR-2h

<400> 569

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

<210> 570

<211> 16

<212> PRT

<213> Artificial

<220>

<223> U1-61.1-CDR-3h

<400> 570

Asp	Ser	Glu	Ser	Glu	Tyr	Ser	Ser	Ser	Ser	Asn	Tyr	Gly	Met	Asp	Val
1				5					10					15	

<210> 571

<211> 11

<212> PRT

<213> Artificial

<220>

<223> U1-61.1-CDR-11

<400> 571

Arg	Ala	Ser	Gln	Thr	Ile	Ser	Ser	Tyr	Leu	Asn
1				5					10	

<210> 572

<211> 7

<212> PRT

<213> Artificial

<220>

<223> U1-61.1-CDR-21

<400> 572

Ala	Ala	Ser	Ser	Leu	Gln	Gly
1				5		

<210> 573

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

<220>
<223> U1-61.1-CDR-3l

<400> 573

Gln Gln Ser Tyr Ser Asn Pro Leu Thr
1 5

<210> 574
<211> 12
<212> PRT
<213> Artificial

<220>
<223> U1-61-CDR-1h

<400> 574

Gly Val Ser Ile Ser Ser Gly Gly Tyr Tyr Trp Ser
1 5 10

<210> 575
<211> 16
<212> PRT
<213> Artificial

<220>
<223> U1-61-CDR-2h

<400> 575

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

<210> 576
<211> 16
<212> PRT
<213> Artificial

<220>
<223> U1-61-CDR-3h

<400> 576

Asp Ser Glu Ser Glu Tyr Ser Ser Ser Ser Asn Tyr Gly Met Asp Val
1 5 10 15

<210> 577
<211> 10
<212> PRT
<213> Artificial

<220>
<223> U1-62-CDR-1h

<400> 577

Gly Tyr Ser Phe Thr Ser Tyr Trp Ile Gly
1 5 10

<210> 578
<211> 17
<212> PRT
<213> Artificial

<220>
<223> U1-62-CDR-2h

<400> 578

Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe Gln
1 5 10 15

Gly

<210> 579
<211> 12
<212> PRT
<213> Artificial

<220>
<223> U1-62-CDR-3h

<400> 579

Gln Met Ala Gly Asn Tyr Tyr Tyr Gly Met Asp Val
1 5 10

<210> 580
<211> 12
<212> PRT
<213> Artificial

<220>
<223> U1-62-CDR-11

<400> 580

Arg Ala Ser Gln Ser Val Ile Ser Ile Tyr Leu Ala
1 5 10

<210> 581

<211> 7

<212> PRT

<213> Artificial

<220>

<223> U1-62-CDR-21

<400> 581

Gly Ala Ser Ser Arg Ala Thr
1 5

<210> 582

<211> 9

<212> PRT

<213> Artificial

<220>

<223> U1-62-CDR-31

<400> 582

Gln Gln Tyr Gly Ser Ser Pro Cys Ser
1 5

<210> 583

<211> 447

<212> PRT

<213> Artificial Sequence

<220>

<223> Antibody

<400> 583

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

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

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile

35

40

45

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

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

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

Arg Asp Lys Trp Thr Trp Tyr Phe Asp Leu Trp Gly Arg Gly Thr Leu
 100 105 110

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

<210> 584
<211> 220
<212> PRT
<213> Artificial Sequence

<220>

<223> Antibody

<400> 584

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

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

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

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

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

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

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

Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130 135 140

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145 150 155 160

Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
165 170 175

Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
180 185 190

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

195

200

205

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